

MAR 5 1930

PERIODICAL ROOM  
GEORGE W. BROWN  
UNIV. OF MICH.

# THE AMERICAN School Board Journal

A PERIODICAL OF SCHOOL ADMINISTRATION



March 1930

THE BRUCE PUBLISHING COMPANY

New York

MILWAUKEE, WIS.

Chicago



## SEAT-ACTION CLOSETS ARE BEST FOR SCHOOLS

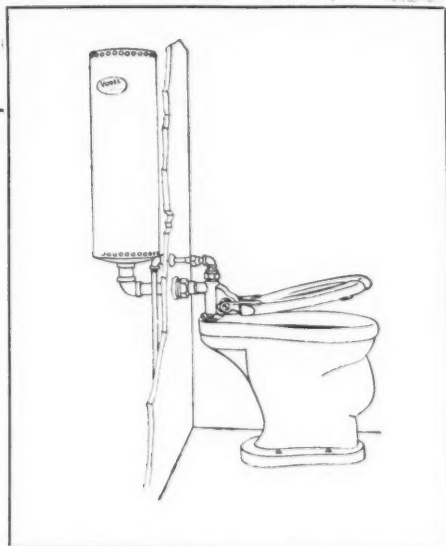


..... and **VOGEL**  
**SELFFLUSH** Closets  
are the most economical  
and long-wearing seat-  
action closets you can buy.

**B**ECAUSE there is no hand operation and children cannot forget to flush them, seat-action closets have proved to be the most satisfactory for use in the schools.

The **VOGEL SELFFLUSH** Number Ten and Number Ten-A are high grade seat-action closets that will last for years without the need for repairs. They are designed especially for schools, by a concern that has specialized in seat-action closets for more than 20 years. They are economical in use of water, using but 3 to 4 gallons on a flush—there's nothing to stick and cause the water to continue to run after the closet has been used.

You should know more about the **VOGEL SELFFLUSH** Number Ten and Ten-A seat-action closets. Write us, and we'll send you complete information. We shall also be glad to furnish roughing-in measurements for school architects.



### **VOGEL**

**Number Ten-A  
SELFFLUSH**  
closet with  
tank concealed.  
The Number  
Ten closet has  
an exposed  
tank. Can be  
furnished with  
syphon-action  
or syphon jet  
bowl, although  
we recommend  
the syphon-  
action type.

*Showing how tank is placed behind the wall in connection with the Number Ten-A Closet.*

*All moving parts are readily accessible and the tank is absolutely leak-proof. Where desirable a tank corridor can be installed.*

**JOSEPH A. VOGEL COMPANY**

Wilmington, Delaware  
St. Louis, Missouri

# **VOGEL** *Products*

JOSEPH A. VOGEL COMPANY,  
Wilmington, Delaware.  
Please send your folder on the Vogel Selfflush Number  
Ten closet for schools and institutions, as advertised  
in American School Board Journal.  
Name.....  
Address.....  
City.....  
State.....



# *"I have never found a Satisfactory Substitute for Natural Slate Blackboards"*

David A. Ward  
Superintendent of  
the Chester Public  
Schools,  
Chester, Penna.



PUBLIC SCHOOLS  
PENNSYLVANIA

December 21, 1929

Natural Slate Blackboard Company,  
Pen Argyl,  
Pennsylvania.

Gentlemen:

In reply to an inquiry, I wish to say that during my administration as Superintendent of Schools in Wilmington, Delaware, six new school buildings, totaling in cost approximately \$4,000,000.00, were erected, and that all of these buildings were equipped with natural slate blackboard. I left Wilmington on June 1 of this year. I know, however, that additional buildings are contemplated, and I have no doubt that the satisfaction given by the natural slate will assure its use in future buildings in that city.

The quality and durability of natural slate make it the most economical material for blackboard use. It has a hard, smooth surface, which makes the writing stand out in clear-cut lines. It is easily cleaned, and always looks well.

I have never found a satisfactory substitute for the natural slate blackboard.

Very sincerely yours,

David A. Ward  
Superintendent of Schools

DAW:VA

Mr. Ward joins the army of Public School Officials who endorse Natural Slate Blackboards for their everlasting qualities.

Natural Slate Blackboards are Sanitary, Dustless, Fireproof, Easy to Clean--Always like new. They increase schoolroom efficiency and the morale of both teachers and pupils.

Naturally the leading superintendents of the country, experiencing these unexcelled qualities, put them as their first choice.

Write for two booklets completely describing these boards . . . specifications . . . data and an interesting story on the quarrying and finishing of slate.

Address your request on your business stationery to

NATURAL SLATE BLACKBOARD CO., 340 ROBINSON AVE., PEN ARGYL, PA.  
BRANCH OFFICES IN ALL PRINCIPAL CITIES

## NATURAL SLATE BLACKBOARDS

### *Natural Slate Blackboards Outlast the Building*



# WE GO TO SCHOOL



Midland men are taught, in a "classroom," just what their products will do and how they do it. Midland Products are compounded for special purposes and specified surfaces. There is no one cleanser that will do all classes of work with equal efficiency. When a Midland Man specifies a certain product for a certain job he does so because he knows it will do that job best.

## MIDLAND SCHOOL HOUSEKEEPING

A complete system of school housekeeping, the modern science of school building maintenance has been conceived and perfected by Midland Maintenance Engineers. When we realize the millions of dollars invested in school property, the importance of efficient and economical upkeep

becomes apparent. It is the aim of the Midland national organization to provide the finest materials and approved methods of school building maintenance. A man nationally known and recognized for his work in this field is in charge of the Midland School Housekeeping System. He has prepared textbooks on this subject which will be supplied without cost to those interested in this work. Simply fill in the coupon below and mail to-day.



MIDLAND CHEMICAL LAB., INC., DUBUQUE, IOWA  
 Gentlemen: Please send me the Midland School Housekeeping  
 text books. I am in charge of this work at \_\_\_\_\_ school.  
 My position is \_\_\_\_\_  
 Name \_\_\_\_\_  
 City \_\_\_\_\_  
 State \_\_\_\_\_

**Midland Chemical Laboratories, Inc.**

Dubuque, Iowa, U. S. A.



# KEWANEE

## Water Heating GARBAGE BURNERS

The real solution of the hot water, and the garbage and rubbish disposal problem in modern schools.

Here is a water heater that *does more* than heat water. For it is also a garbage and rubbish incinerator, using such refuse as part of the necessary fuel—saving from 30 to 50 per cent of the fuel needed by ordinary heaters. And the garbage and rubbish is disposed of in a sanitary way.

Built in three types and fourteen sizes; to raise the temperature of from 200 to 2600 gallons of water, 50 degrees per hour; there is a Kewanee for every building.

Its husky steel riveted construction guarantees it lasting as long as the building.

### KEWANEE BOILER CORPORATION

division of American Radiator and Standard Sanitary Corporation

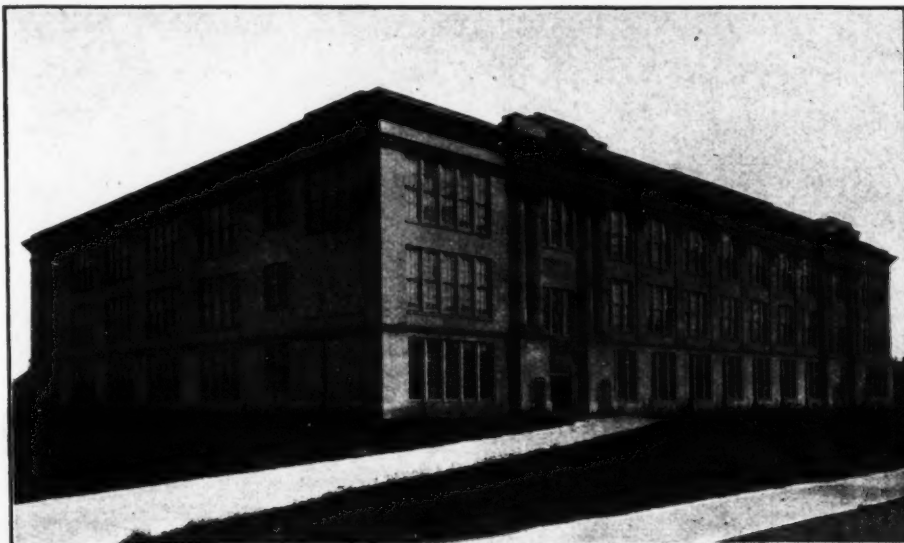
KEWANEE, ILLINOIS

Branches in 40 Principal Cities

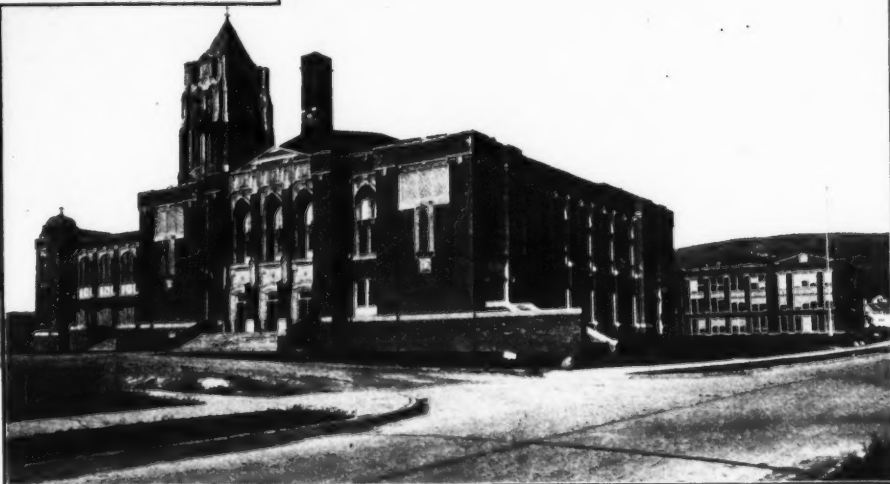
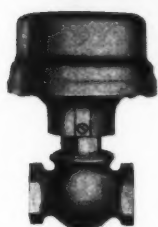


Hot Water is as Necessary as Heat





Newport News High School, Newport News, Virginia.  
Charles M. Robinson, Richmond . . . Architect.



Denfeld High School, Duluth, Minnesota.  
Holstead & Sullivan, Duluth, Architects.

## WIDESPREAD USE of JOHNSON CONTROL

School Buildings in all parts of the United States have Johnson Heat & Humidity Control. It is used on every form, plan and system of heating and ventilating; and is providing a valuable convenience and service, with fuel saving of 25 to 40 per cent.

In The Denfeld High School (illustrated above) for example: all heat and ventilation is Johnson Controlled. Vacuum steam heating with central fan and air washer is used. Ventilation is arranged in four sections: for Auditorium, Class Rooms, Science and Manual Training, and Gymnasium—Johnson Controlled so that each section may be used independently without ventilating the balance of the building. Steam mains supplying various sections are valved and Johnson Controlled so that steam can be cut off entirely in any section as desired.

In the Newport News High School (illustrated above) as another example: all heat and ventilation is Johnson Controlled, except a few minor rooms. Here furnace heating and ventilating is used, and controlled by the Johnson Straight System of regulation.

Such widespread use of Johnson Control, the varying conditions and methods of heating and ventilating—with the practical results being obtained should interest every school official toward including Johnson Heat & Humidity Control in their school buildings. Johnson Book of complete details furnished on request.

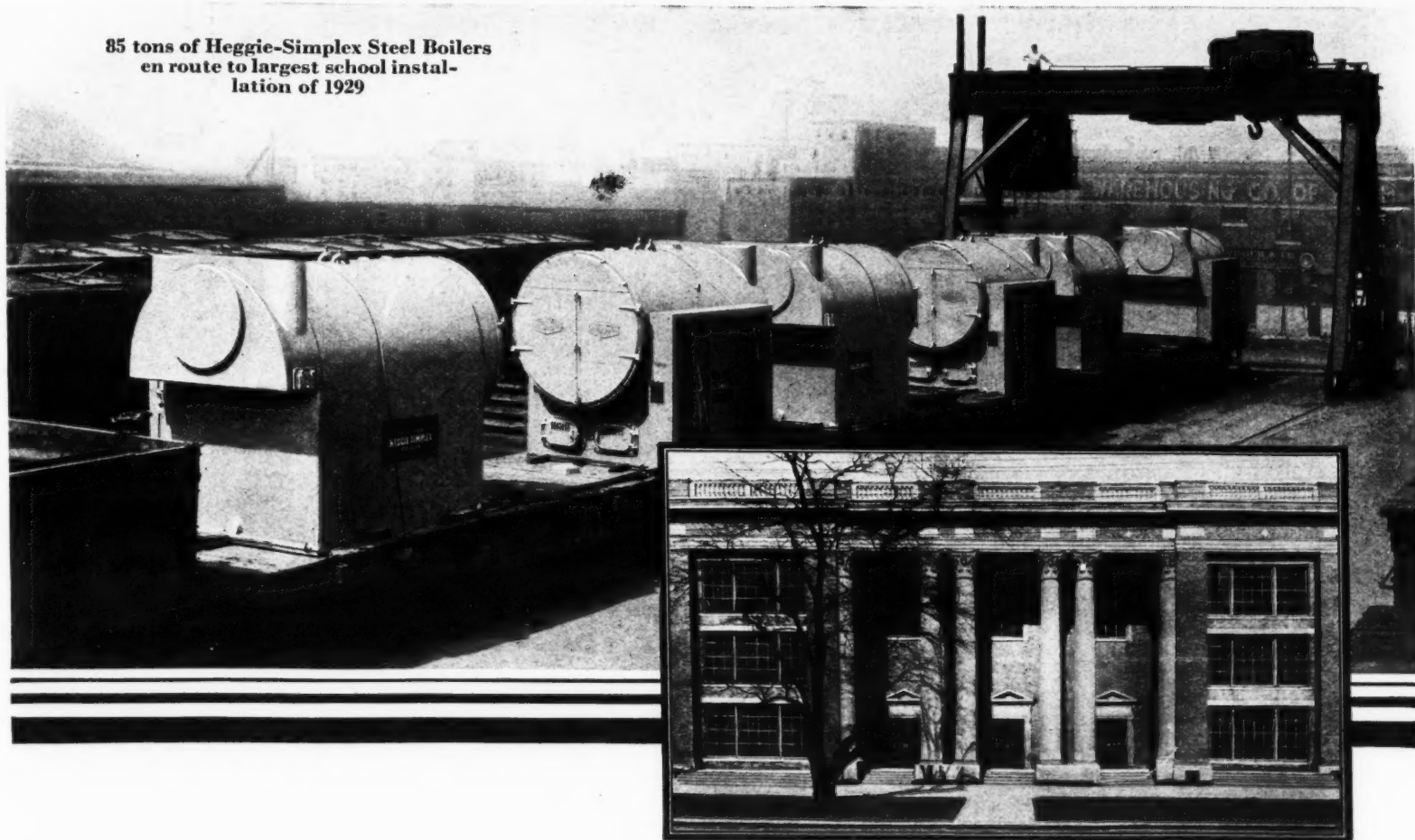
### JOHNSON SERVICE COMPANY

MILWAUKEE, Established 1885 WISCONSIN  
BRANCHES IN ALL PRINCIPAL CITIES

# JOHNSON HEAT & HUMIDITY CONTROL



85 tons of Heggie-Simplex Steel Boilers  
en route to largest school instal-  
lation of 1929



## Heggie-Simplex Selected for 1929's Largest School

**F**OR the largest school installation of heating boilers in 1929—the Wilkes-Barre High School, Wilkes-Barre, Pa.—Heggie-Simplex Steel Heating Boilers won first choice in competition with all other makes. The engineers selected Heggie-Simplex because they were convinced that these most modern of heating units would assure the utmost in dependable performance at the lowest operating and maintenance costs.

The huge combustion chamber of Heggie-Simplex Boilers gives fuel more room to burn. Their much larger

direct heating surface and unrestricted water circulation readily absorb all heat produced. Rear-front-rear flues carry the gases twice the length of the boiler, stripping them of all usable heat units before they reach the chimney.

Heggie-Simplex electric welded steel construction not only precludes cracking, leakage and repair costs, but also effects substantial savings in insurance premiums.

Investigate these safer, more economical heating units for your school buildings. Complete facts on request.

*Heggie-Simplex Boiler Co., Joliet, Ill. Representatives in principal cities—Telephone and address listed under "Heggie-Simplex Boilers."*

# HEGGIE-SIMPLEX

STEEL HEATING BOILERS







# Von Duprin

Self-Releasing Fire and Panic Exit Latches

## Where Simplicity Counts Most

Simplicity is of the greatest value whenever it permits stronger and more reliable construction.

It does exactly this in the Type "B" Von Duprin devices. The remarkably simple design (fully protected by our patents) makes possible the use of actuating members far heavier than we have ever before been able to use.

The result is a durability, reliability and freedom from maintenance expense—and a consequent sureness of operation at all times—that mean everything in case of emergency. And these are the qualities without which any panic device is worse than useless.

When the genuine Type "B" Von Duprins are speci-

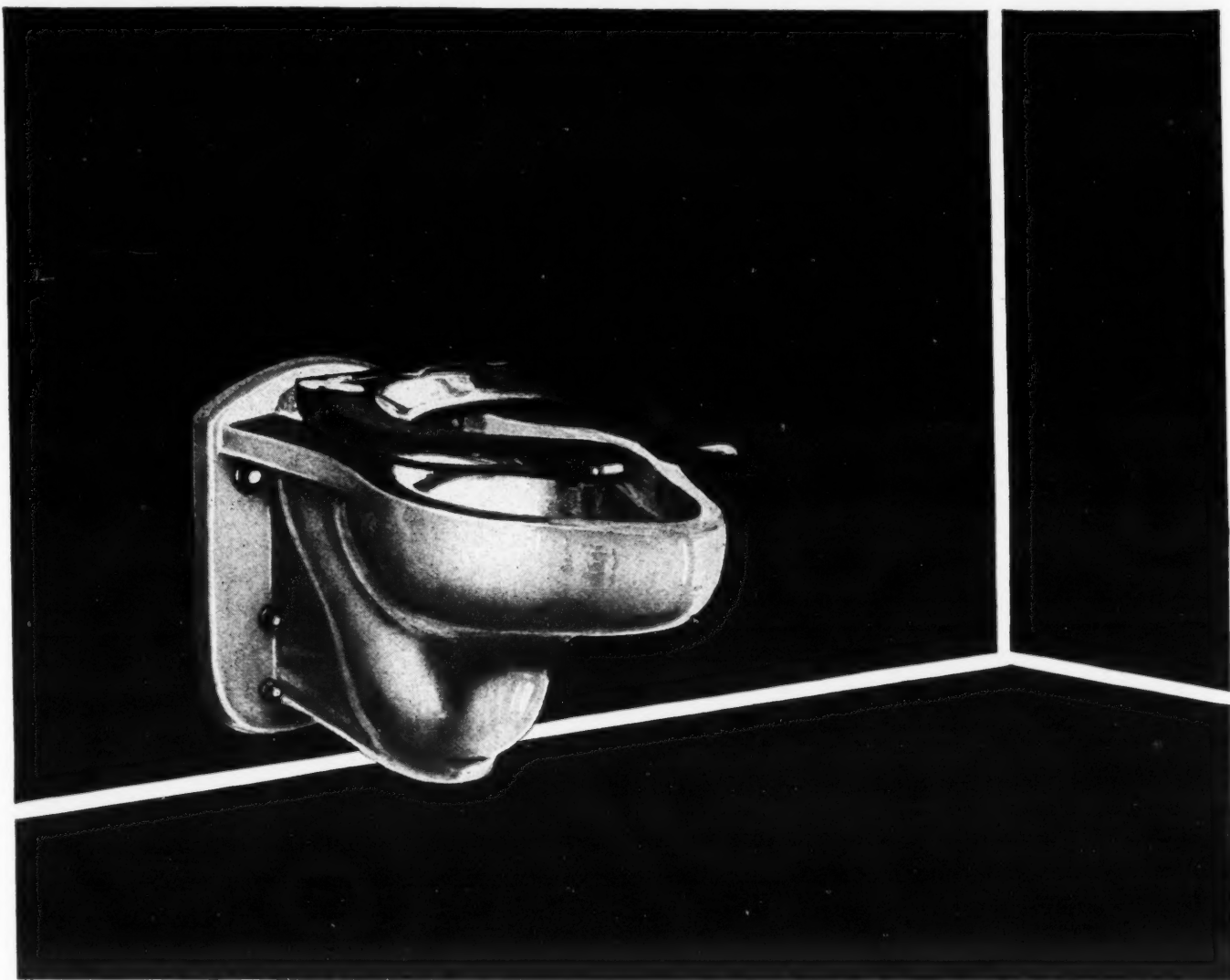
fied, particularly if specified as a separate item from the finishing hardware, you have the ideal solution to the problem of the best possible protection for the occupants of the building in case of panic.

**VONNEGUT HARDWARE CO.**  
Indianapolis, Ind.

*Listed as Standard by Underwriters Laboratories*





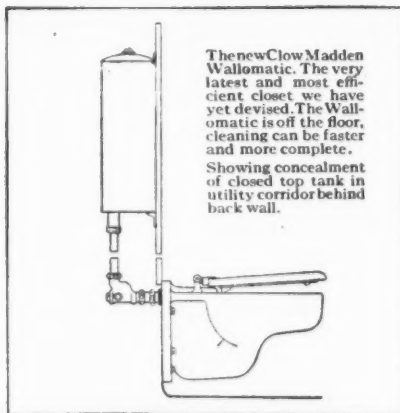


## NEVER FAILED...because someone forgot...

Clow Madden Automatics "carry on" for the life of the building. Records prove them still "young" after 25 years' steady service.

Automatically . . immediately, after the seat has been occupied . . a cleansing flood cleans the bowl, from top through trap.

Clow Madden Automatic Closets never have and *never will* . . fail to flush because someone forgot.



The new Clow Madden Wallomatic. The very latest and most efficient closet we have yet devised. The Wallomatic is off the floor, cleaning can be faster and more complete. Showing concealment of closed top tank in utility corridor behind back wall.

### Record No. 101

After 27 years of high school service at Rock Island, Illinois — 29 Clow Madden Automatics are ready for as many more.

The dependable, simply-built Madden Valve . . permits no waste of water. Maintenance expense is low. Installation records record long years of service.

Don't let forgetfulness leave unflushed closets . . and filthy germs to hatch. Health is too precious to place in the hands of a play-thoughtful child . . a hurried workman . . a careless transient.

James B. Clow & Sons, 201-299 N. Talman Avenue, Chicago

# CLOW MADDEN AUTOMATIC

Forty-Eight Styles, Heights and Types to Meet Your Requirements



# TEACH THEM HEALTH



«

**T**EACH the children in your school the most important lesson of all—how to keep well. Start them on the right road to health with a paper towel that is absolutely safe and sanitary. A. P. W. Albany Victor.

There are no better towels for children. Big. Instantly absorbent. Soft enough for hands or face. Yet strong enough to stand the roughest use—wet or dry. And Albany Victor towels are absolutely safe—sterilized many times over.

Albany Victor towels are more economical—for two reasons. They cost less to start with. And they're more efficient—just one towel wipes the hands dry. That's why school boards all over the country are installing Albany Victors for real dollar-for-dollar saving.

Let us show you how you can cut your wash-room costs—and give the children greater safety—with Albany Victor paper towels. Just fill out the coupon and mail today for prices.

## ALBANY

*Victor*  
TOWELS

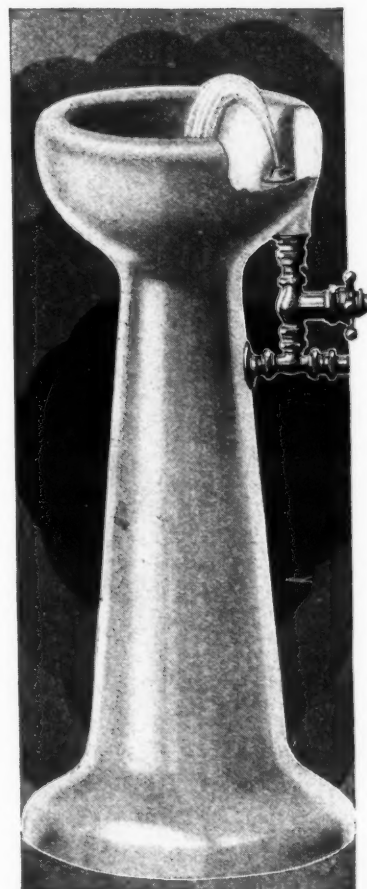
A. P. W. PAPER CO.  
Albany, N. Y.

ASBJ-3-30

*Please send us complete information on how to  
save money by installing Albany Victor towels.*

Name .....

Address .....



## FOUNTAINS OF BEAUTY!

R-S Drinking Fountains are in keeping with the lines of present day architecture . . . . pleasing, clean in design . . . they add much to public buildings, hotels, schools and other institutions.

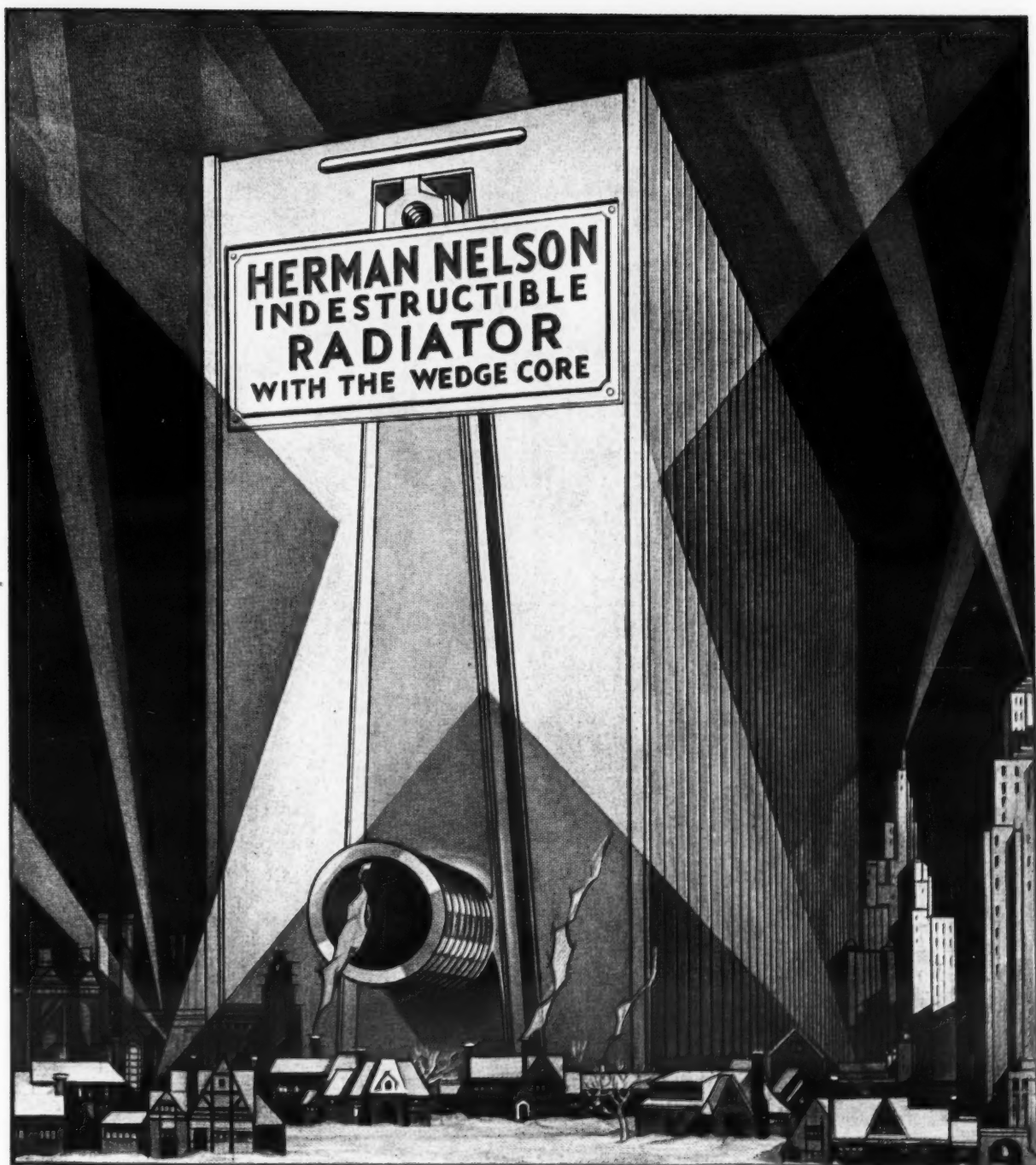
There are many types and styles of R-S Fountains . . . . but all have the R-S Vertico Slant feature. Let us give you full particulars. Write for catalog.

RUNDLE-SPENCE MFG. CO.

51 Fourth Street  
MILWAUKEE, WIS.

RUNDLE-SPENCE  



# OUR CONTRIBUTION TO THE ART OF HEATING AND VENTILATION

The Herman Nelson Wedge Core Radiator is an exclusive feature of all Herman Nelson Heating and Ventilating Products and accounts for their satisfactory performance.    +    +    +    +

THE HERMAN NELSON CORPORATION MOLINE  
ILLINOIS



# Building the coming men and women of America

The American school boys and girls of today will guide the destiny of their country tomorrow. . . . The school superintendents and teachers are, therefore, the producers of the nation's most important product; and the school room is the factory in which this work must be performed. . . . The photograph below was taken in 1924. Happy and healthy children have been coming from this room ever since, and will continue to come many years hence. It is equipped with Univent Ventilation.



**N**OTE the Univent—a machine which draws air directly from out-of-doors—cleans it—warms it to a comfortable temperature—and silently delivers it to every pupil in the room, with agreeable air motion, but without drafts.

In schools where the Univent is in operation, records show a notably high standard of attendance. Children work in an atmosphere conducive to health of body and mind. They are better able to concentrate—to grasp and retain the knowledge that will be so vital in future years.

In selecting the Univent system of ventilation school executives are meeting their responsibility as guardians of the health and welfare of the children of their community. And in addition, they are carrying out their pledge to tax payers by making an investment in a ventilating system that effects great savings in operating and maintenance costs.

Before you place your sanction on any ventilating system, know the facts about the Univent. Consult your architect or heating engineer, or get in touch with our nearest sales office. If you prefer, write for our illustrated book, "Univent Ventilation."

\* \* \* \*

\*Makers of the *Univent*, for the ventilation of schools, offices, churches and all buildings having an acute ventilating problem—the *Herman Nelson Invisible Radiator*, for residential apartments, hotels, offices, and monumental structures—the *Herman Nelson hiJet Heater*, for economical distribution of heat in factories, mills, garages, warehouses, and smaller buildings.

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## THE HERMAN NELSON CORPORATION\* MOLIN ILLINOIS

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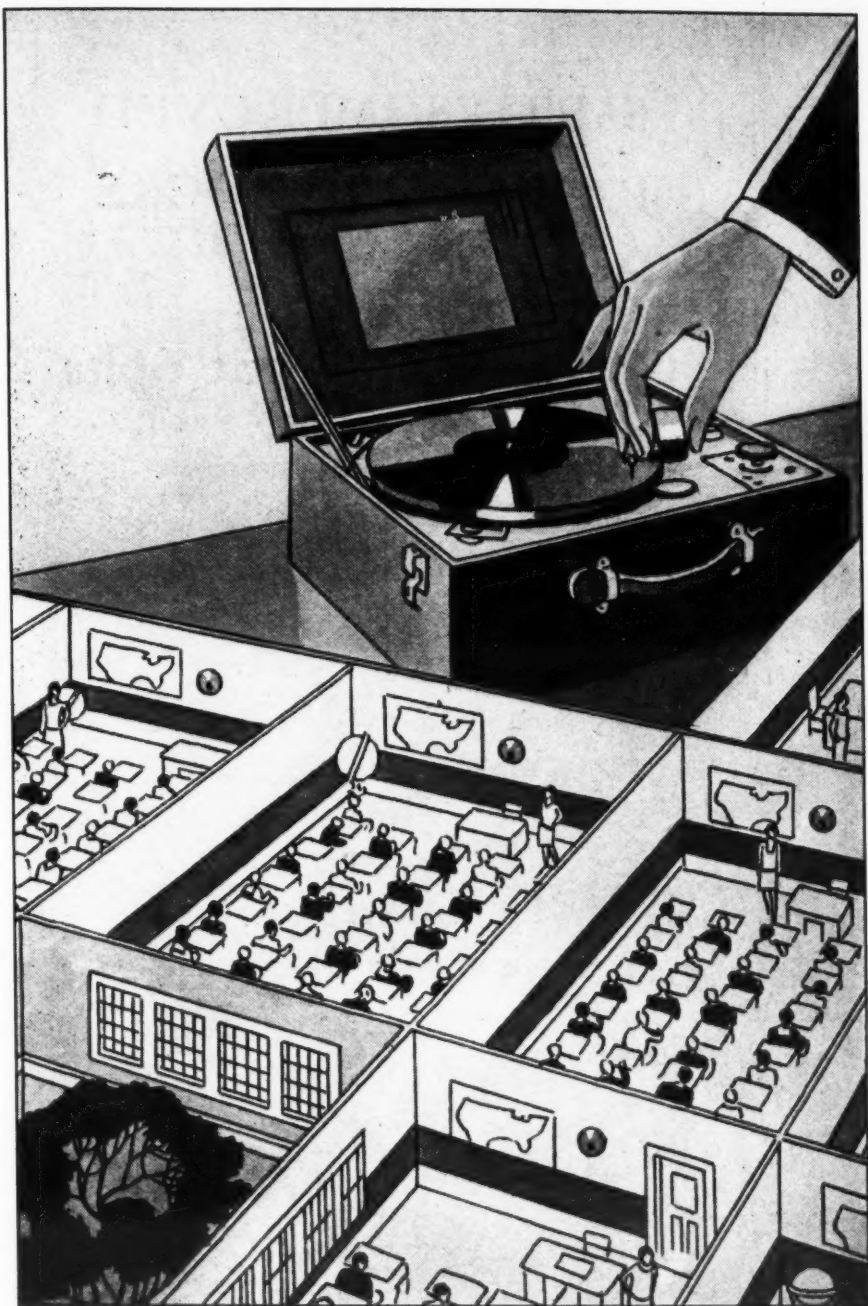
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OMAHA  
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DENVER  
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## THE SAME FULL-TONED MUSIC IN EVERY CLASSROOM

For courses in Music Appreciation, get whatever music you want at whatever time you want it. Get it from one source—the Western Electric Music Reproducer. Send it to every room or any desired group of rooms; let every student hear distinctly. This apparatus plays phonograph records in rich full tones.

The System is a flexible one. It can be hooked up with a radio receiving set, and the same equipment sends the programs to every class.

You can feel sure when you use Western Electric apparatus, that it incorporates the latest

development in sound transmission. It is made by the makers of your telephone.

Find out more about these systems. Write for further information to the distributor, Graybar Electric Company, Graybar Bldg., New York, N. Y. Offices in 73 principal cities.



Exercises and folk dances are given new zest with music—via loudspeaker.



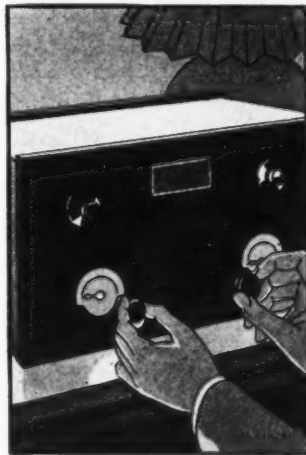
The principal's voice may be heard in 15 (or 150) rooms at once.



—And the distinguished visitor "visits" all rooms at once—thanks to the microphone.



—One school architect says "For fire use alone, it would more than justify itself."



Music appreciation courses—current events—any radio program can be heard by all.



A child's voice can fill any auditorium when amplified as the System permits.

# Western Electric

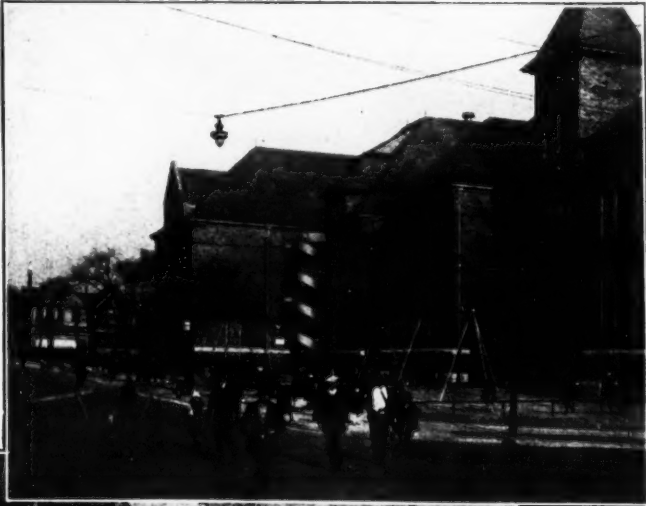
PUBLIC ADDRESS AND MUSIC REPRODUCTION SYSTEMS

Distributed by GRAYBAR Electric Company



# How Safe are they at Recess Time?

The open play-  
ground — here  
danger threatens!



The fenced  
playground  
— here  
children  
play in  
safety!

School board officials are relieved of a great responsibility when they provide fence protection for school playgrounds. For in face of today's traffic conditions, absolute safety for children can be provided in no other way.

Leading schools throughout America are enclosing playgrounds with Cyclone Fence. It keeps children out of danger and protects school property at all times.

Cyclone Fence retains its dignified appearance many years. Built so that top rail will not sag, nor posts lean, nor fabric lose its rigid strength.

You can see for yourself why Cyclone Fence is so outstanding in durability. All parts are made of copper-steel, heavily galvanized. Note the dense, smooth coat of zinc on the fabric—the result of hot-dip galvanizing. No rough spots, no chipped places, no chance for rust to start. Erected on H-column posts — the strongest posts made.

Cyclone Fence is installed by our own trained men. Erection service everywhere. If Cyclone Fence Company is not listed in your phone book, write direct to us.

**Cyclone Fence**  
REG. U.S. PAT. OFF.



All chain link  
fence is not  
Cyclone. This  
name plate  
identifies the  
genuine  
Cyclone Fence.

CYCLONE FENCE COMPANY

SUBSIDIARY OF  
UNITED STATES STEEL CORPORATION

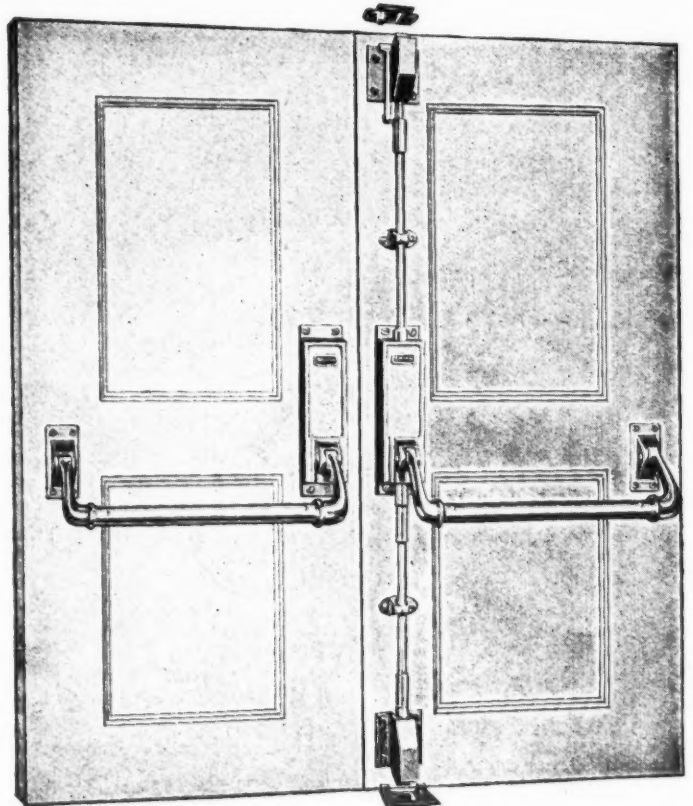
General Offices: WAUKEGAN, ILL.  
Branch Offices in All Principal Cities

Pacific Coast Division:  
STANDARD FENCE COMPANY, Oakland, Calif.

## SMITH'S IMPROVED PANIC EXIT LOCKS

NO. 80 LINE

### Gravity Panic Exit Bolts



Inside View  
Has Outside Trim.

Inside View  
No Outside Trim.

Bolts are operated by a slight pressure on the Cross Bar.

Bolts are not dependent on springs for opening or closing operation.

Simple but sturdy in construction and easily installed.

Will operate perfectly in connection with standard makes of door closers.

Catalogue No. 30 with Supplement "A" sent on request..

Manufactured by  
**THE STEFFENS-AMBERG CO.**  
260-270 Morris Ave.  
NEWARK, N. J.



# BEAUTIFUL MARY INSTITUTE

LOCATED on a twenty acre campus in St. Louis County, Mo., Mary Institute is an important addition to a city of fine schools. The architectural conception is the work of Study & Farrar, architects, of St. Louis and the entire project a monument to the generosity of Mrs. Sarah Wilson of St. Louis. Its purpose is that of a preparatory school for girls.

Permanent beauty of the building's interior is provided for by Par-Lock (Specification Form B) applied to the inner face of all exterior walls receiving plaster finish, all interior concrete surfaces as well as the concrete joist-tile ceilings. Par-Lock has also been specified for the principal's house, not yet constructed.

The Gamble Construction Co. of St. Louis, are the general contractors, with the plastering contract in the hands of Dunn & Campbell, also of St. Louis. Par-Lock was applied by the Par-Lock Appliers of St. Louis.

THE VORTEX MANUFACTURING CO. • 1987 West 77th Street, Cleveland, Ohio



Address  
**PAR-LOCK  
APPLIERS**  
At Any Point  
Listed

ALBANY,  
425 Orange Street  
ATLANTA,  
Bona Allen Building  
BALTIMORE,  
613 West Cross Street  
BUFFALO,  
958 Ellicott Square Bldg.  
CHARLOTTE,  
217 Builders Ex. Bldg.  
CHICAGO,  
862 Builders Building  
CINCINNATI,  
611 Dixie Terminal Bldg.  
CLEVELAND,  
218 Hunkin-Conkey Bldg.  
COLUMBUS,  
751 South Cassingham Rd.  
DETROIT,  
2457 First National Bldg.  
KANSAS CITY,  
2035 East 19th Street  
MINNEAPOLIS,  
434 Builders Exchange  
NEWARK, N. J.,  
24 Commerce Street

NEW YORK CITY,  
50 Church Street  
PHILADELPHIA,  
1700 Walnut Street  
PITTSBURGH,  
207 Fulton Building  
SCRANTON,  
Cedar Avenue  
ST. LOUIS,  
1514 Chemical Building

TORONTO,  
2258a Bloor Street, West  
TRENTON,  
339 Broad St. Bank Bldg.  
YOUNGSTOWN,  
503 City Bank Building  
WILKES-BARRE,  
904 Second National  
Bank Building



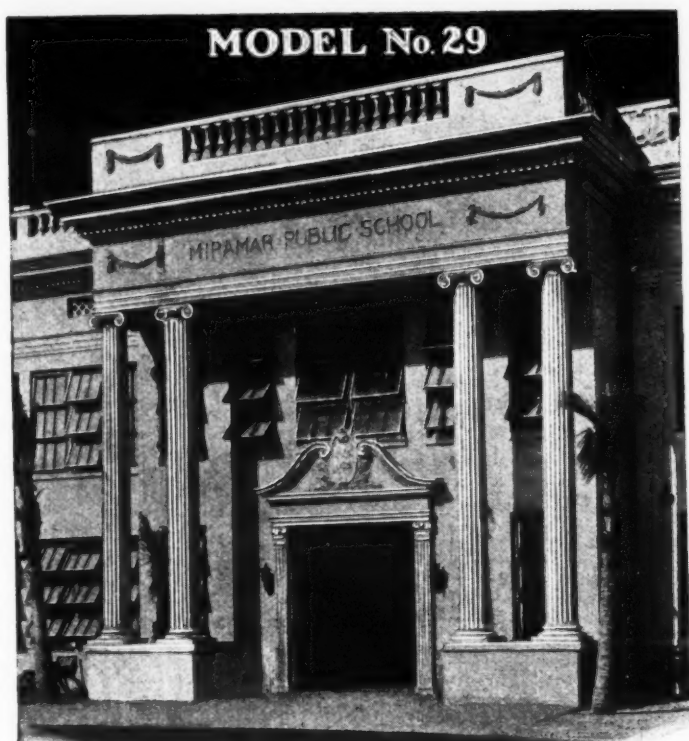
PROTECTED BY

**Par-Lock**  
Plaster-Key

P-34



# TRUSCON DONOVAN AWNING TYPE STEEL WINDOWS



## for Health and Safety

Diffused sunlight and draughtless ventilation are provided for schools, offices and other buildings by Truscon Donovan Awning Type Steel Windows. They are operated very simply without window poles by the movement of the lower sash which controls the upper sash. The shades on the open windows act as awnings. Their high quality is evident in their superior design and workmanship. Their cost is moderate due to large production.

*Full information, literature and quotations on request.*

### TRUSCON STEEL COMPANY YOUNGSTOWN, OHIO

Truscon Steel Company of Canada, Limited, Walkerville, Ontario. Warehouses and Offices in Principal Cities.

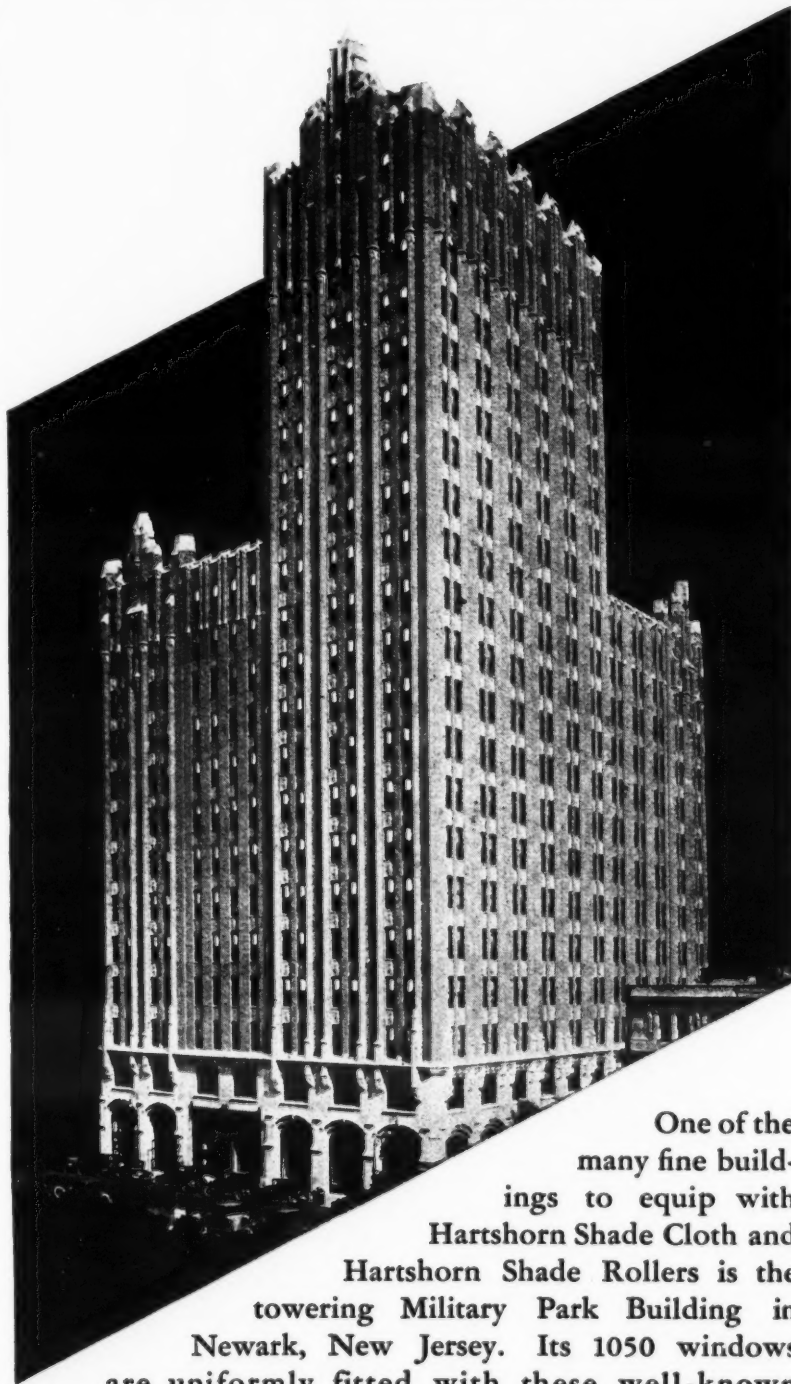
PACIFIC COAST PLANT—LOS ANGELES

Pacific Coast Sales and Engineering Offices: San Francisco, Los Angeles, Seattle, Portland.

The Universal Window Company, 1916 Broadway, Oakland, California.  
Pacific Coast Distributors

1050 windows in the  
MILITARY PARK BUILDING  
Newark, N. J.

have shades of HARTSHORN SHADE CLOTH  
mounted on HARTSHORN ROLLERS



One of the many fine buildings to equip with Hartshorn Shade Cloth and Hartshorn Shade Rollers is the towering Military Park Building in Newark, New Jersey. Its 1050 windows are uniformly fitted with these well-known Hartshorn products.

The quality of the shade cloth is due in large measure to the single control of each process of its manufacture. It is spun, woven, and finished by Stewart Hartshorn . . . Hartshorn Shade Rollers have been preferred for seventy years—they are smooth running, noiseless, rustproof, and always dependable. Write for prices and samples.

STEWART HARTSHORN CO.  
250 Fifth Avenue New York, N. Y.

*Hartshorn*  
Est. 1860



SHADE ROLLERS and  
WINDOW SHADE CLOTH



AT THE INCEPTION OF OUR BUSINESS

# RUBBERSTONE



*Asphalt Tile Flooring*

Built like a Highway ~ for Wear

was considered a good name for our product. Made of asphalt, known in the trade as mineral "Rubber" and developed by a Mr. Stone—the combination of Rubber and Stone seemed a happy one.

But in time it became evident that Rubberstone frequently implied "rubber tile." During the last few years it has been necessary for us to continually explain, by word and by letter, that Rubberstone was an *Asphalt* tile....and bear in mind that Rubberstone pioneered the asphalt-tile type of flooring!

An unfortunate situation—which we now rectify. We are changing the name Rubberstone to

# \* HANOTILE



*Asphalt Tile Flooring*

Built like a Highway ~ for Wear

We are also changing the name of the company from RUBBERSTONE CORPORATION to

## AMERICAN ASPHALT TILE CORPORATION

\* The name HANOTILE is derived from the name of our President—MR. GEORGE C. HANNAM

*The product, the company personnel, distributors and business addresses remain unchanged. The Executive Offices will continue to be at One Madison Avenue, New York City.*



**RALPH E. ABELL CO.**

176 W. Adams Street  
Chicago, Illinois  
Architects and Engineers  
Educational Buildings

**COFFIN & COFFIN**

ARCHITECTS

522 FIFTH AVENUE  
NEW YORK CITY

**GUILBERT & BETELLE**

Architects

Chamber of Commerce Building  
Newark, New Jersey

**SAMUEL C. ALLEN**

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Educational Building Specialist

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**FRANK IRVING COOPER CORPORATION**

ARCHITECTS

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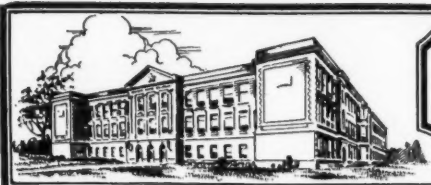
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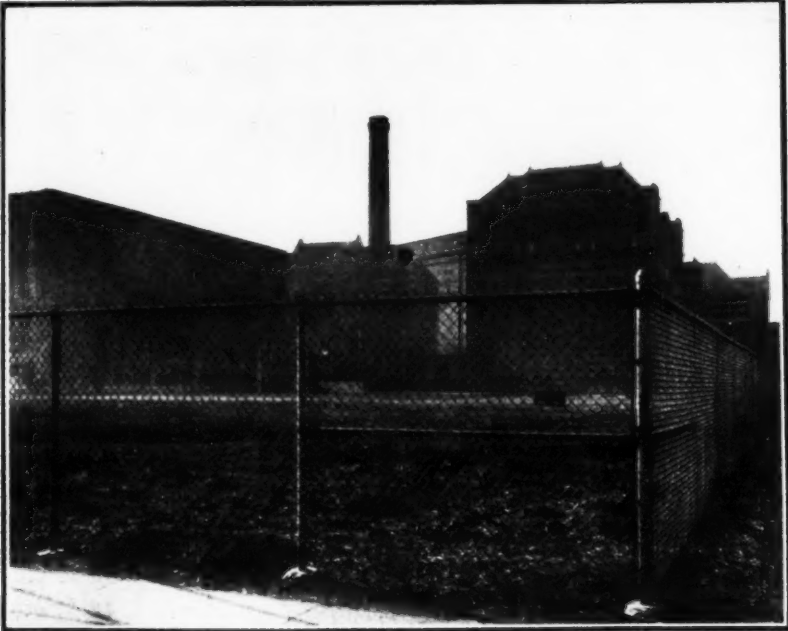
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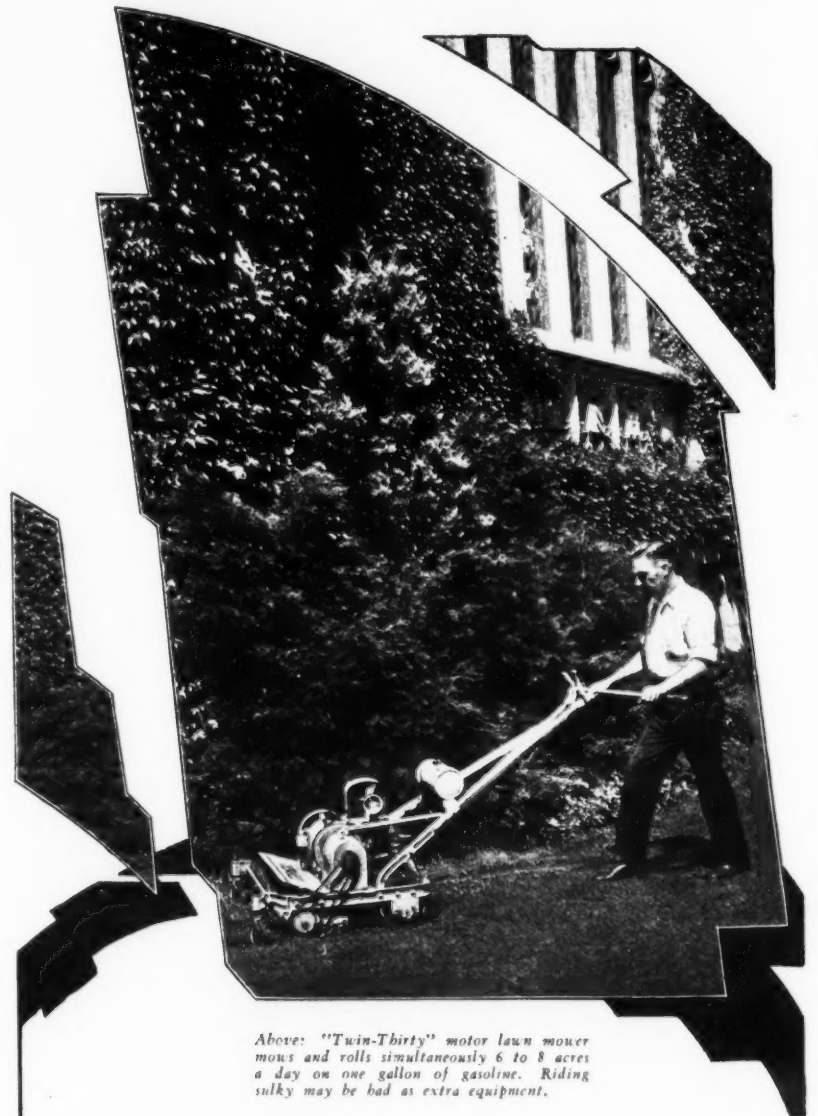
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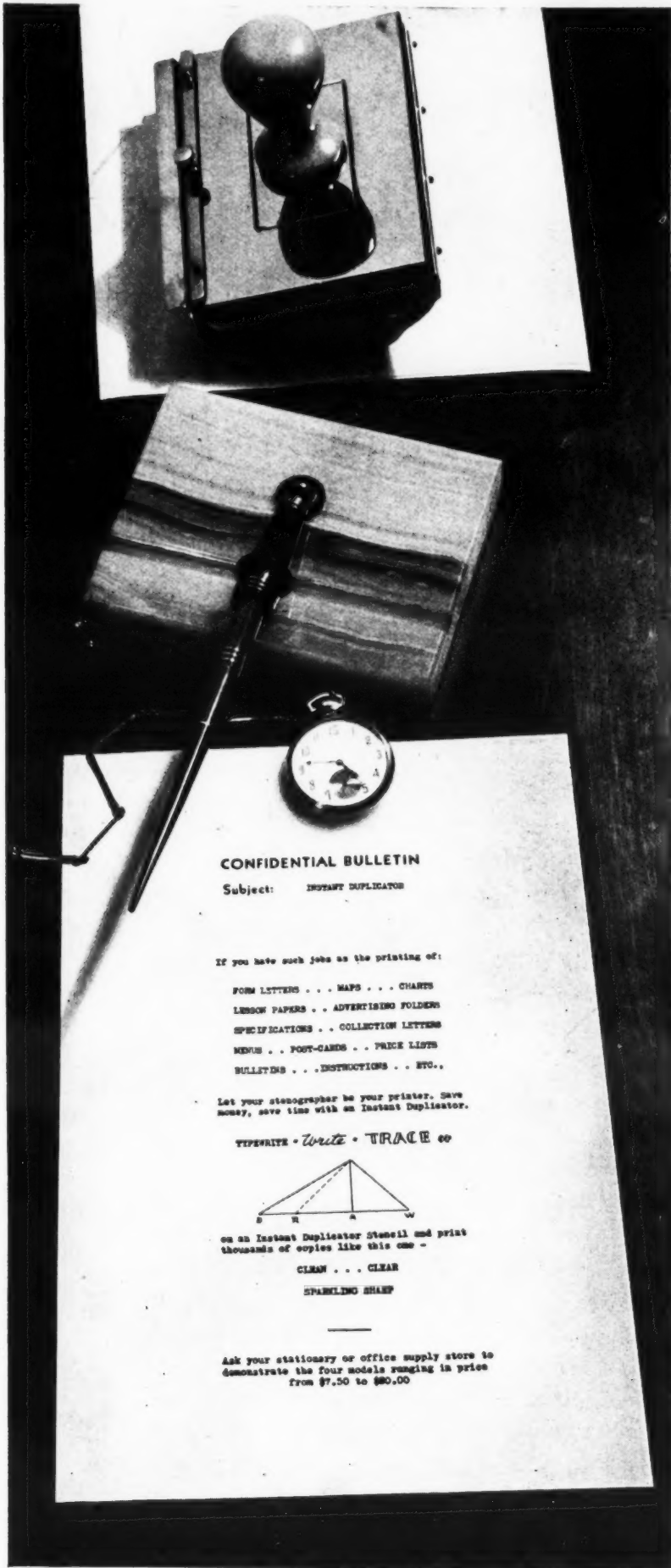
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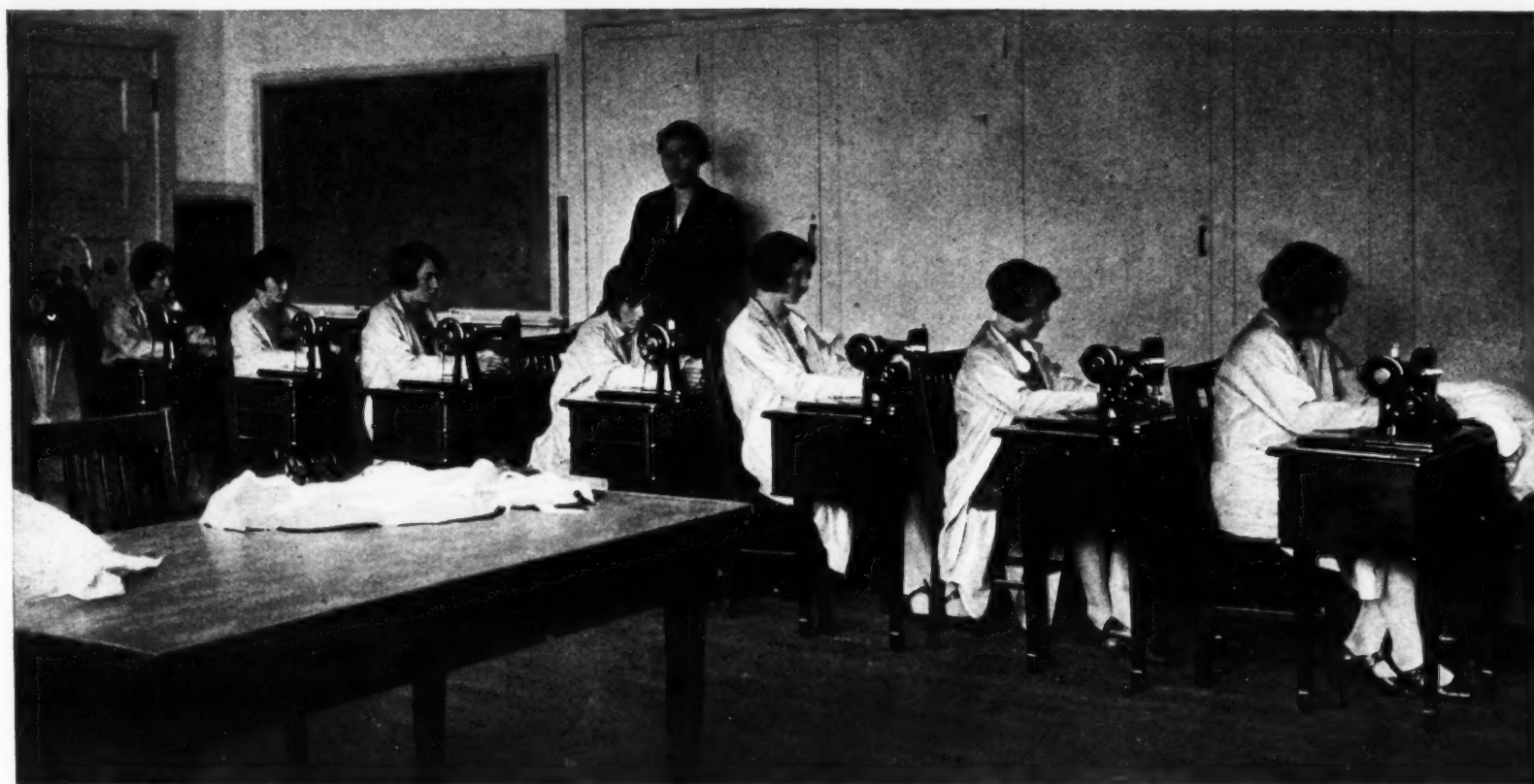
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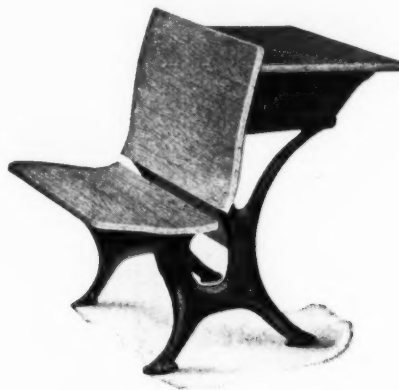


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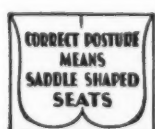


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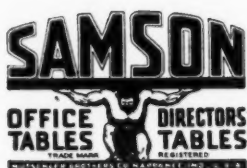
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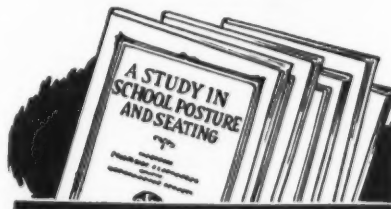
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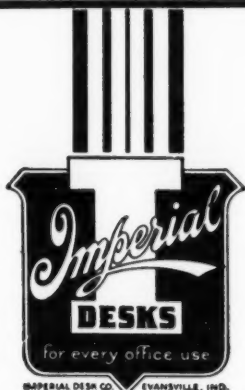


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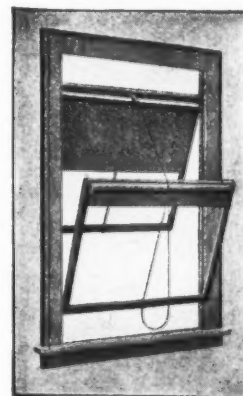
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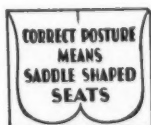


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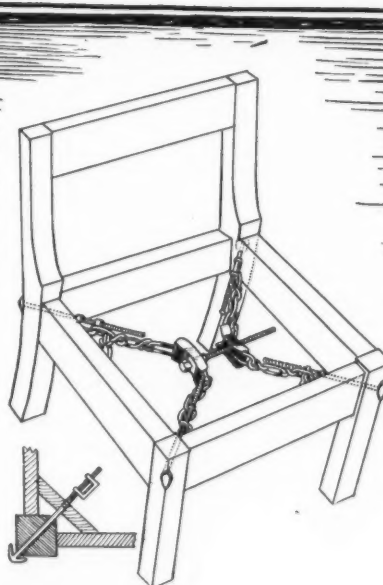
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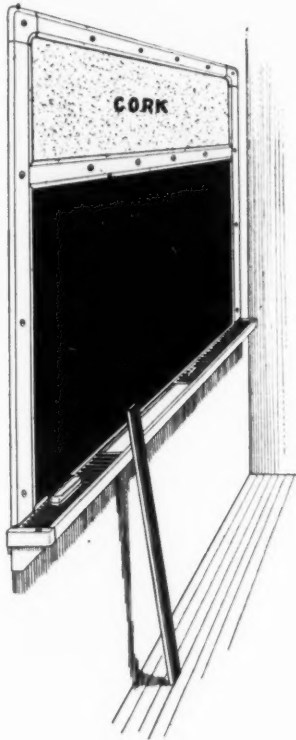
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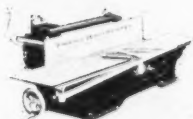
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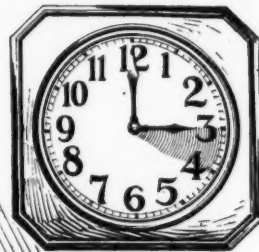
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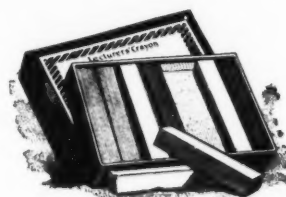


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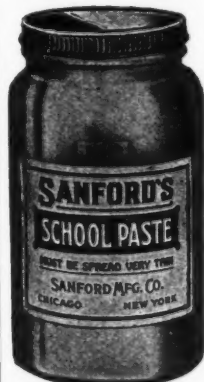
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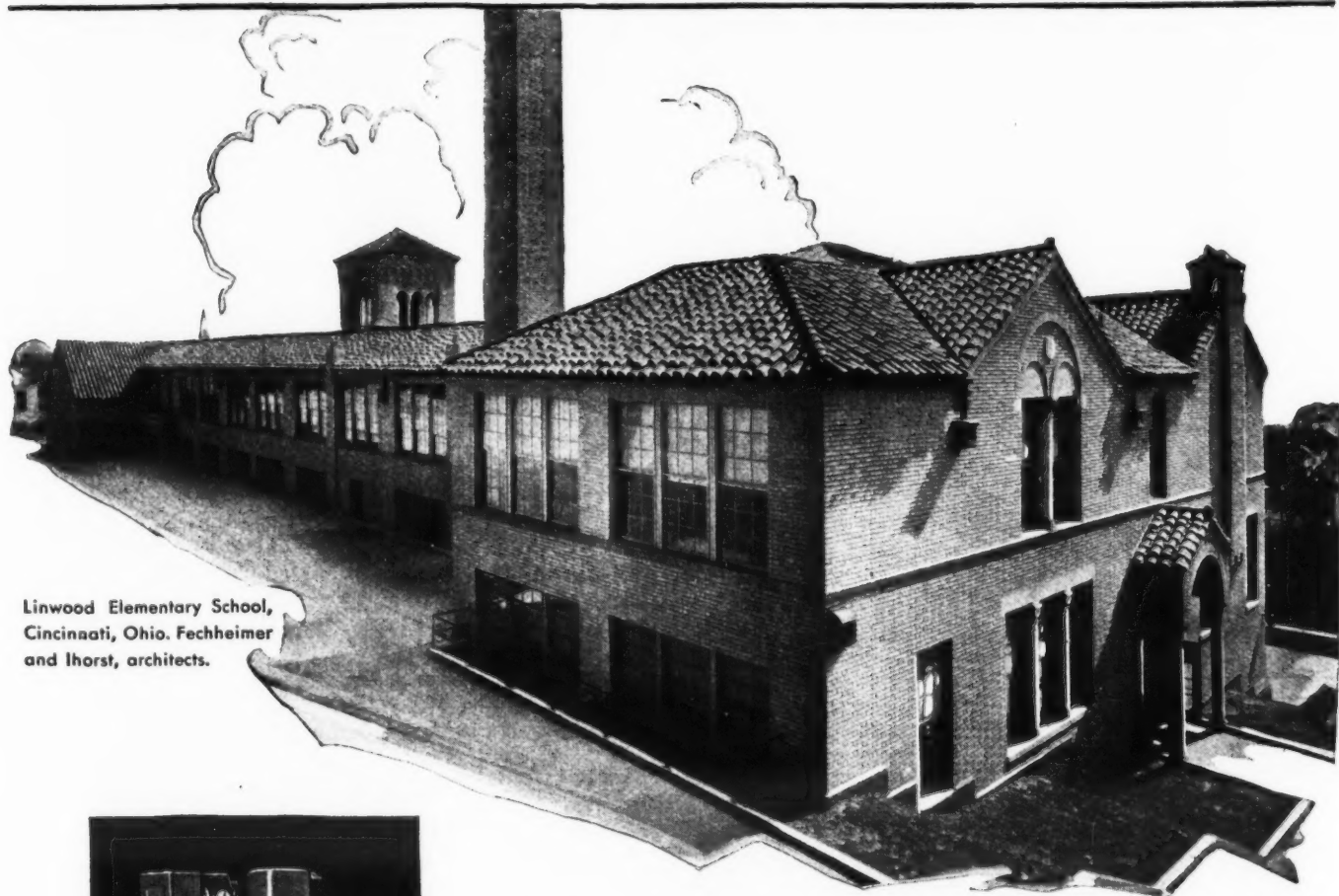
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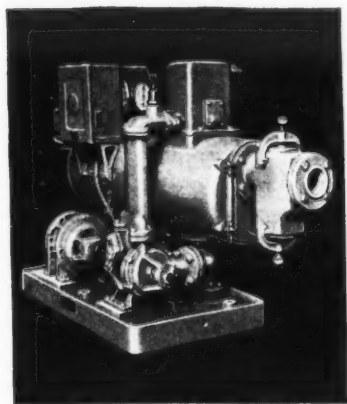
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VOL. 80  
No. 3

# THE AMERICAN School Board Journal

MARCH,  
1930

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NEW YORK, N. Y.

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CHICAGO, ILL.

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## Spring-Time Speculations!

If the experiences in the field of school administration, as exemplified in this country within the year past, teach any lesson of consequence, that lesson is that it is well to plan today what you must do tomorrow.

Many of the embarrassments, trials, and difficulties which have attended the school official, and which in many instances have assumed a serious aspect, have been due to the fact that some one slipped a cog yesterday, last year, or five years ago.

To do things on time goes a long ways toward doing things well. Thus, a timely anticipation of future needs becomes the watchword of the hour. The springtime suggests anticipation of the close of the school term, over-hauling of the school plant, vacation-time operations, and planning for the fall opening.

Renovations and alterations, early consideration of the purchase of supplies and equipment, changes in the professional staff, and the like—all worthy of timely thought and attention. A stitch in time saves nine. Timely school administrative action obviates future troubles and failures.

The columns of the AMERICAN SCHOOL BOARD JOURNAL teach the lesson of timely anticipation in the school administration service.

THE EDITOR.



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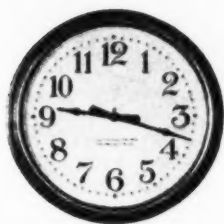
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Editorial Material—Manuscripts and photographs bearing on school administration, superintendence, school architecture, and related topics are solicited, and will be paid for upon publication. Contributions should be mailed to Milwaukee direct, and should be accompanied by stamps for return, if unavailable. Open letters to the editor must in all cases contain the name and address of the writer, not necessarily for publication, but as evidence of good faith.

The contents of this issue are listed in the Education Index.





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"STANDARD MAKES EVERY MINUTE COUNT"



# THE AMERICAN School Board Journal

Founded March, 1891, by WILLIAM GEORGE BRUCE

Volume 80, No. 3

MARCH, 1930

Subscription, \$3.00 the Year



EDUCATION'S AMBASSADOR TO THE CIVIC SERVICE ASSOCIATIONS



## Doc and Henry

Peter Ronalson

Doc and Henry have both been on our school board so long, that I doubt whether Chatterton's oldest inhabitant can recall exactly when either of them first began serving.

All of us think a great deal of Doc. We also think just as much of Henry. Doc is the M.D. whom we call when we are really sick. Henry has the biggest, best, and busiest of Chatterton's hardware stores.

Doc and Henry think a great deal of one another, too. But they do not agree on very many matters of school policy. Take the matter of increasing teachers' salaries for instance.

"It is our duty to run the schools of this community as economically as possible," is the general tenor of Henry's grumble when the salary question comes up. "What is the use of pinching pennies in purchases of chalk and sweeping compound if we are going to squander money on unnecessary salary raises? Some 60 per cent of our budget goes for salaries now, and that is not only enough, it is too much. If the teachers we have are not willing to stay for what we are paying them, let them go. There are plenty of others to be gotten. I, for one, would just as soon see some people right out of college on our teaching staff in place of some of the old-timers. These young teachers are well-trained in modern methods and enthusiastic, and they will come cheaper than older teachers. Why not give them a chance?"

The last time that Henry aired his opinions, Doc countered with the statement that the medical schools were doing a good job of training young medics, and that the young doctors are required to serve a year of internship before being allowed to practice their profession.

"But I noticed, Henry," Doc continued devastatingly, "that when you had to have your appendix removed, you did not call in any enthusiastic young cub just out of medical school. No, sir! Nobody would do but one of the old-timers. Well that is pretty much the way I feel about teachers. It may be all right to have a few inexperienced people on our staff, but if half of our teaching staff is going to be made up of young kids right out of school, I know that we are going to have a rotten school system no matter how enthusiastic or how well trained they are. Our main object is not economy anyway. If we are so anxious to save money, why not close the schools entirely? We can save more money by locking them up than we can by having them in operation."

I think that Doc had a little the better of the argument that night, but that is not always the case.

Some years ago, for instance, the superintendent whom we had at that time, came before the board with a request for an expensive new microscope for the biology classes. Doc immediately made a motion that the superintendent be authorized to make the purchase.

Henry thought otherwise, however.

"What has become of that microscope we bought three years ago?" he inquired. "As I recall that was just as good a microscope as the one we are being asked to buy now. Is it true that it was not put back in its case after being used and that as a result it was ruined?"

The superintendent had to admit that such was the case.

"In that case," suggested Henry between puffs at his pipe, "I think that we had better wait about getting a new microscope until we get a new superintendent and a new biology teacher."

And there the matter ended.

For years we did not have any rule regarding sick-leave, and each time a teacher was sick we

took up her individual case on its own merits. If she was a good teacher and we were convinced that she had really been sick, we generally gave her her full pay for the time she had been out of school. Otherwise we ordered the substitute's pay taken out of her salary check.

The trouble was that no matter how fair we tried to be, every teacher whose request for sick leave was denied, felt aggrieved and believed that she was just as much entitled to be paid in full as the girl whose case we had passed upon favorably. As a result an immense amount of jealousy arose among our teachers. Then, too, it took too much of our time.

For instance the application of Mary Jones for sick leave would come up.

"I certainly don't think that this girl should be paid for the time that she was out of school," Henry would object. "The only thing wrong with her was a cold."

Whereupon Doc would probably remark, "Well, she showed good sense in staying home instead of going to school and soaking a roomful of defenseless little children with her germs."

Others would join in the discussion and the evening would be gone with little else decided.

After several years of this, Doc rose one night and announced that in his opinion our board had something more important to do than quibbling about a teacher's pay for two or three days.

"I move," he continued, "that each teacher be given ten days' sick leave with pay, provided that on her return to school she presents to the superintendent of schools a certificate, signed by a doctor, that she has been ill, or if her illness is of not more than two days, signed by the school nurse."

This motion did not meet with Henry's approval at all.

"We pay these people good salaries," he stormed. "Why should we in addition pay them for services not rendered? It is about time that the teachers learned something of business principles. The only way that they are going to learn is by being taught to stand on their own

feet financially. They had better begin to put something aside for a rainy day instead of depending upon this school board to take care of them when they run into hard luck. Nobody pays me for being sick, and I am sure that nobody pays you when you are sick either, Doc."

"That may be so, Henry," replied Doc when Henry finally ran out of wind, "but I distinctly remember that when Pete Johnson, who works in your store, was sick last winter, he told me that you paid him for the entire month he was laid up. Why don't you practice what you preach, you snivelling old hypocrite?"

"That was different," explained Henry rather apologetically. "Pete has given me twenty years of faithful service. Paying out the taxpayers' money as a gift to a young woman who is here this year, and perhaps gone the next, is a different matter."

Doc came right back at him.

"How about Amelia Black?" he asked. "Could anyone give more faithful service than she has given this school district for the last twenty-two years? She is entitled to as much consideration as Pete Johnson any day."

"Amelia Black is different," conceded Henry, "and I'd be in favor of paying her for sick-leave any time she asked for it. But the rest of them will be staying out their ten days whether they are sick or not. I can tell you how this sick leave proposition works out. They have it at Metropolis where my niece teaches. Well, she tells me that her roommate was sick in bed one day until the school nurse had called. Then as soon as the nurse had gone, she was up and around, and in the evening she went with her boy friend to a dance twenty miles out in the country."

"If we ever make the mistake of hiring a teacher like that," interjected Doc, "I sincerely hope that we shall not make a second mistake of reengaging her for another year. But it certainly would not be fair to deprive other teachers of the privilege because of a dishonest little fool like that. I am pretty sure that the great majority of them would appreciate our fairness in granting the leave and would not abuse it."

The rest of us agreed with Doc, but that did not discourage Henry. The next meeting found him as faithful a watchdog of the treasury as ever.

## Actuarial Basis for Teachers' Retirement Funds

When it was discovered that the teachers' retirement fund of Portland, Oregon, was only 35 per cent solvent, steps were taken to secure the necessary legislation for needed changes in the plan upon which the fund was being operated.

Mr. Horace Mecklem, president of the Portland board of education, who has had thirty years of experience in the life-insurance field, and is an authority on actuarial solvency, led in solving the problem in hand. The necessary legislative changes were secured. The plan makes retirement possible, as explained by Mr. Mecklem, under the following conditions:

"Any teacher who has attained the age of 60 may retire on an annuity of \$75 a month payable for 12 months in the year. Any teacher who becomes disabled and is incapacitated for a period of five months, regardless of age or length of service, will thereafter receive an annuity of \$75 during the period the disability extends.

"In order to participate in these benefits, all teachers, who on July 1, 1929, were under the age of 45, must have in the fund the sum of \$5,530 to retire at the age of 60. This amount is the cost of an annuity of \$37.50 according to the American annuitant table. All teachers who on July 1, 1929, were between the ages of 45 and 55 are required to pay into the fund \$3,687,

which is the cost of an annuity of \$25 per month. Teachers beyond the age of 55 pay \$2,580, which is the cost of an annuity of \$17.50 per month.

"The state legislature at the last session directed the Portland school district to pay to each teacher when retired the difference between the annuities purchased by her contributions and \$75 per month. This means that the group under 45 years of age on July 1, 1929, will receive from the District \$37.50 per month; the group between 45 and 55 will receive \$50 per month, and group over 55 the sum of \$57.50 per month. The legislature also provided that the district should pay as a disability annuity an amount equal to the difference between the annuity which the teachers' contributions would purchase up to the time the disability occurred and \$75 per month.

"Any teacher who leaves the service of the district because of resignation, dismissal, or because of death, will have refunded to her or to her estate, all that she has paid into the fund with 4 per cent compound interest. No fines or forfeitures of any kind are exacted."

It is believed by Mr. Mecklem, and the insurance experts, who cooperated with him, that the plan as now adopted is based on sound actuarial and financial lines.



# Organization for the Coordination of Business and Professional Services\*

Dr. Carter Alexander, Professor of Education, Teachers College, Columbia University

## The Problem

The achievements of American education are numerous and important. But, a universally acceptable organization for the coordination of school business and professional services is not one of them. Instead, our school systems show two widely different organizations of these activities growing out of two educational philosophies just as divergent. Sharply drawn, the issue is this: On our familiar organization charts, should the business manager of the school system be under the superintendent, or coordinate, or superior to him and dealing directly with the board of education?

Which is the better form of organization in general? To answer this, let us get away from the mere partisan pronouncements of superintendents, board members, and business managers who may be biased in favor of the form that will give them personally the greater power. School officials are still men. As such, they enjoy power and easily convince themselves that they will exercise all the power they can manage to acquire, more profitably than their associates. Instead, to answer the question, let us see what is indicated by present school practice, by business practice, by educational writers of authority in school administration and by the evidence of educational investigations.

## Present School Practice

Present practice in school systems shows a great variety of organizations for handling business management. The statistical facts on cities of 30,000 and over appear in Table I. In brief, these indicate that the superintendent's lot, as related to the business manager, is often not a happy one.

TABLE I. Status of Business Managers for Schools—Cities of Over 30,000<sup>1</sup>

	Cities over 100,000.	Cities 30,000 to 100,000.
	Per Cent	Per Cent
Percentage having business managers.	76	64
Percentage of business managers who are also board secretaries.....		50
Percentage of business managers responsible through superintendent...	45	38
Percentage of business managers directly responsible to board.....	55	38
Percentage of business managers responsible to superintendent and board jointly.....		24
Percentage of business managers appointed on recommendation of superintendent.....	55	56
Percentage purchasing supplies and equipment on recommendation of superintendent.....	69	70

Specifically, the table shows that, in about a fourth of the cities over 100,000, and in a third of those from 30,000 to 100,000, there is no business manager. Presumably, the superintendents in them have no particular problem of organization, however much they may need business managers to free them for more important professional work. In both classes, a little over half the superintendents having business managers recommend these men, and hence have only themselves to blame if they cannot have business matters go as they think best. It seems strange that in 10 per cent of the larger

cities, and 24 per cent of the smaller cities, superintendents are expected to nominate their equals. In about 70 per cent of both groups of cities, the superintendent with a business manager is allowed to recommend supplies and equipment, which ordinarily run at least 5 to 10 per cent of the current expense budget. If he controls teachers' salaries which he does not always do, since the business manager may control the total allowed for such salaries, he may thus control about 70 to 75 per cent of current expense in 70 per cent of the cities.

For the other side of the picture, in over half of the cities above 100,000 having a business manager, he is directly responsible to the board. In about a third of the cities from 30,000 to 100,000, he is responsible to the board, and in about a fourth more to the board and superintendent jointly, with all the trouble possibilities inherent in a man's trying to keep up two allegiances. Moreover, in half of the cities of 30,000 to 100,000, he is also board secretary, with the possibility always present of his being consulted by board members without the knowledge of the superintendent.

The situation is all the worse when the laws of the nine states mentioning school business managers are considered. Indiana, Illinois, Kentucky, New Jersey, Pennsylvania, and Ohio have the business manager in certain cities coordinate with the superintendent. Washington does not indicate its relation to the superintendent. New Jersey by-law says that the board of education in a certain class of cities must appoint a business manager and may appoint a superintendent. Michigan leaves it to the board of education to fix the relationship. Only New York makes the business manager subordinate to the superintendent. Six of the states make provision for a business manager in the larger cities. New Jersey, New York, Ohio, and Washington provide that the board of education may appoint a business manager if it so desires.<sup>2</sup>

## Business Practice

In brief, present practice shows that in the larger cities, particularly in eight states, many superintendents are compelled to work in organizations that make it difficult to know who is in authority, or who is responsible for business matters. This is a situation that business itself would term most unbusinesslike. To quote A. L. Heer, who studied extensively factory, industrial, and business organizations:

In business and industry it is almost a universal practice for the board of directors to elect one chief executive officer, and to delegate to him the duties and responsibilities of management, while the board acts as a legislative body. The principle of centralized and fixed authority is axiomatic in business and industry.<sup>3</sup>

## Views of Authorities in School Administration

The educational writers of authority in administration are unanimous that there should be a unit organization, with the business manager directly to the superintendent of schools. The list of writers examined includes: Cubberley,<sup>4</sup> Engelhardt, N. L., and Engelhardt, Fred,<sup>5</sup>

Heer,<sup>6</sup> Moehlman,<sup>7</sup> Morrison,<sup>8</sup> Reeder,<sup>9</sup> Smith,<sup>10</sup> Strayer,<sup>11</sup> and Theisen.<sup>12</sup>

These writers, as well as superintendents like Carroll Reed of Minneapolis,<sup>13</sup> and A. L. Threlkeld of Denver,<sup>14</sup> support their views by arguments well grounded in fundamentals and principles. The business managers in their papers, addresses, and discussions at their national association sometimes state, and often imply, their view of the advisability of a multiple or dual organization, with the business manager coordinate with the superintendent, and directly responsible to the board. They, however, generally base their points on *ipse dixit* or personal experience and do not present anything like the weight of fundamental principles employed by those favoring the unit type.

## Results of Researches

From the researches on this issue up to 1929, to quote Dr. H. P. Smith:

... but one conclusion is inevitable. That conclusion is this: There should be for a city school system unified administrative control centered in one executive officer, whose point of view is primarily educational.

These researches are well summarized in Chapter IV of his *Business Administration of Public Schools*, and establish these points:

1. Business practices are essentially alike in both types of cities.
2. No financial economies result from the multiple type of control.
3. Administrative and personal relationships in multiple-type cities are such as to hamper the realization of the chief objective of public education.
4. Functions are performed in the same manner in both types of cities.

## Summary

We have now seen what is indicated for our issue by present school practice, by business practice, by educational writers of authority, and by researches. The last three point unmistakably to a unit system, with the business manager responsible to the superintendent, and hence to be nominated by the latter. Present school practice does not unanimously so point, but the school systems with divided responsibility are the ones who complain about the temperature of the water. If anything further is needed to clinch the matter, it is this: The principle of centralized control "has been recognized by all committees of laymen which have investigated the problem of school administration within the last fifteen years" before 1926.<sup>15</sup>

<sup>1</sup>Heer, A. L., *The Present Status of Business Executives in the Public Schools of the United States in Cities of Over 25,000 and More Inhabitants*, p. 135. Kent State Normal College, Kent, Ohio.

<sup>2</sup>Moehlman, A. B., *Public School Code of the Hamtramck, Mich., Public Schools*, Research Series No. 2, p. 85. Board of Education, Hamtramck, Mich., 1927.

<sup>3</sup>Morrison, J. Cayce, *Legal Status of the City School Superintendent*, p. 134. Warwick and York, Inc., Baltimore, Md., 1922.

<sup>4</sup>Reeder, Ward G., *Business Administration of a School System*, pp. 17-21. Ginn and Co., Boston, Mass., 1929.

<sup>5</sup>Smith, H. P., *Business Administration of Public Schools*, Chap. IV. World Book Co., New York, 1929.

<sup>6</sup>Strayer, G. D., *Addresses and Proceedings of the National Education Association, 1925*, pp. 797-8. National Education Association, Washington, D. C., 1925.

<sup>7</sup>Theisen, W. W., *The City Superintendent and the Board of Education*, p. 100. Bureau of Publications, Teachers College, Columbia University, 1917.

<sup>8</sup>Reed, C. R., "Efficiency in the Administrative Organization of the School System," *Proceedings, Fifteenth Annual Meeting, National Association of Public-School Business Officials*, Ontario, Canada, 1926, pp. 17-22.

<sup>9</sup>Threlkeld, A. L., "Business Department of a Public School System as Viewed by a Superintendent of Schools," *Proceedings, Seventeenth Annual Meeting, National Association of Public-School Business Officials*, Denver, Colorado, 1928, pp. 138-143.

<sup>10</sup>Heer, A. L., *The Present Status of Business Executives in Public Schools of the United States in Cities of Over 25,000 and More Inhabitants*, p. 135.

\*A paper read before Group IV, Department of Superintendence, Atlantic City, New Jersey, February 25, 1930.

<sup>1</sup>Based on data of City School Leaflet No. 29, November, 1927, "Certain Practices in City School Administration," by W. S. Deffenbaugh. U. S. Office of Ed., Washington, D. C., pp. 14-15.



### The Individual System's Problem

Now that the better form of organization in general has been clearly indicated, what is an individual school system to do? If it is contemplating installing a business manager or selecting a new one, he should be nominated by the superintendent and made responsible to the superintendent, in accordance with what our evidence indicated, unless the laws forbid. If they do, the best thing is for the board voluntarily to waive its rights and by gentlemen's agreement let the superintendent nominate the man. The latter should be asked in advance to agree to proceed as nearly as possible according to the preferred plan. If he is nominated by the superintendent, he is practically certain to live up to his agreement.

Where the business manager is responsible to both superintendent and board, the latter should voluntarily agree to make him responsible to the superintendent.

Where the business manager is also secretary to the board, and it is found impossible to discontinue the arrangement, a rule requiring the superintendent to be present at all board and committee meetings will greatly reduce the possibilities of misunderstanding and friction between the superintendent and business manager.

Where the business manager is coordinate with the superintendent, but not nominated by the latter, and for reasons of custom or personality it is not feasible to change, there is nothing to do but make the best of a bad situation. But, a school system divided against itself at the top, however little, is liable to fall at any time.

### The Superintendent's Responsibility

Three final suggestions will help to obtain the coordination so often talked about in school systems having trouble with the dual organization. First, the superintendent of schools who has taken pains to equip himself with the essentials of school-business management may exert the necessary leadership, to secure what is practically the unit type, no matter how dual the organization may appear objectively. The dual and multiple plans would hardly have appeared at all, nor would many boards of education be handling school-business management, if all superintendents had been as well trained on the business side as on the instructional phases. Formerly, a superintendent might justly claim that he had had no chance to secure business-management training. That is no longer true, since the books of the Engelhardts, Reeder, and Smith, with the training they signify, are so accessible. If a superintendent today does not know what ought to be done in school-business management, it is because he doesn't read, or will not take a suitable course in a school of education.

### The Business Manager's Responsibility

Second, school systems compelled to operate under the dual organization can encourage cooperation by selecting the right kind of business managers. A business manager should be as well trained in the business management of schools as a superintendent is in the superintendent's field. In addition, the business manager should have had adequate courses in philosophy of education, principles of educational administration, and other courses giving an insight into the real educational problems of school systems. Business managers so equipped would see material things as these should be viewed—always as subservient to the large educational purposes of the schools. A business manager with a viewpoint identical to that of the superintendent, would be certain to cooperate with the superintendent.

### The Associations' Responsibility

Third, a great help to cooperation in dual systems comes from a closer cooperation be-

tween the Department of Superintendence and the National Association of Public-School Business Officials. This would be particularly true, if some way could be found for an exchange of members on programs, and for personal and professional contacts, which would make for much greater cooperation and sympathetic understanding of the other side's viewpoint. If superintendents, business managers, and board members could see their national associations

putting their words about cooperation into actual practice at their meetings, cooperation between the superintendent and the business manager in a local system would seem the only fitting thing.

In brief, if these suggestions were followed, superintendents, board members, and business managers who have to work under undesirable types of organization, would all become more businesslike.

## The Tendency to Stage Investigations and Hearings

In the field of school administration there arise situations requiring adjustments which are prompt but also which entail the least hubbub and excitement. The judicious and sensible administrator knows that the discipline and orderliness so necessary to the conduct of a school system is harmfully disturbed when sensational flare-ups are engaged in. He knows, too, that there are those who would make a mountain out of a mole hill, and who tend to the dramatic and spectacular mode of adjustment when acute differences of opinion arise.

One of the favorite methods employed by those who seek to enlarge upon trouble is to stage public hearings. The differences arising between executives and the professional forces between teacher and parent or pupils, must be aired in the light and glare of public discussion. Nothing less will do. And then the hurrah is or cannot be stopped until it has spent itself.

A newly elected president of a board of education was recently presented with a case where a difference had arisen between the superintendent and one of his principals. He immediately planned a public hearing and proceeded to appoint a committee to handle the case. One of the older members of the board was to be chosen chairman. The public must have the full detail of the squabble.

The older and wiser member of the board

of education refused to serve. In fact, he told the youthful president that it was his business to adjust the difference between the two school officials without resorting to a public hearing. He regarded the whole matter as a tempest in a teapot.

"It is your job, Mr. President, to secure harmony and teamwork between the several factors of the school system," he said. "Your office implies that you must guard and promote the work of the schools and stimulate the momentum of that work in the interest of the school child. There is no higher motive or interest."

It is needless to add that the youthful president of the board of education brought about an amicable adjustment without the intervention of a public hearing and the embarrassing publicity. He discovered that his office implied something besides serving as the presiding head at board meetings.

There are occasions when a public hearing is unavoidable. The professional worker who is slated for dismissal, for instance, is entitled to a hearing if he or she so wills it. But, even here it does not always follow that public hearings are helpful to either the accuser or the accused. They are never beneficial to the prestige and progress of the school system as a whole.

Public hearings should never be resorted to unless private hearings or private conferences have failed to bring about the desired results. This by no means implies that the public shall be denied any knowledge to which it is entitled. But it does mean that wise counsel observed in the ordinary contacts between the several factors that make up a school system may obviate all the annoyances and the disturbances occasioned by resorting to the theatrical and sensational. After all, the public is concerned in the efficient and harmonious conduct of the schools rather than in personal differences which arise among those identified with the school system.

### THE COST OF EDUCATION IN THE UNITED STATES

The average per-capita cost of education in 170 typical cities of the United States for 1928, based upon average daily attendance, was \$101.19, according to Mr. Frank M. Phillips, chief of the division of statistics of the U. S. Office of Education.

According to the report, the per-capita cost, based upon average daily attendance, ranged in cities of Group I from \$59.02 in Birmingham, Ala., to \$157.37 in Yonkers, N. Y., with \$113.69 for an average of 35 typical cities. The range for 60 cities in Group II was from \$39.78 in Montgomery, Ala., to \$149.51 in Mt. Vernon, N. Y., with an average of \$96.78 for the group. Among 75 cities of Group III, the range of per-capita costs was from \$25.57 in Phenix City, Ala., to \$216.77 in Hibbing, Minn., with \$93.12 for an average for the group. The range in small cities was from \$38.24 in Troy, Ala., to \$181.02 in Chisholm, Minn., with an average of \$81.32 for the group.



DR. GEORGE J. RYAN HONORED

Dr. George J. Ryan, President of the New York City board of education, has received from the French government the Cross of the Legion of Honor for his war work carried on as president of the New York board of education. The presentation was made by M. Maxine Mongendre before a notable gathering in the French Consulate.



# Principles of Advancing the Salary of Teachers

Supt. R. C. Clark, Seymour, Connecticut

The one principle on which there seems to be unanimous agreement by makers of teachers' salary schedules, is that teaching experience is a basis for determining salaries. There seems to be common consent that it is desirable to hold experienced teachers. Every schedule allows a number of annual increments on account of experience. There may be several reasons for this:

1. Frequent changing of teachers involves risks, trouble, and expense.
2. Faithful service should be rewarded.
3. Teaching experience increases efficiency.

**Stability Needed.** The salary schedule is a competitive instrument. By it the school authorities hope to obtain and retain good teachers. The smaller or poorer towns make an heroic attempt to meet the lower levels of the schedules found in larger places. They have learned that it is good policy to retain teachers of proved competency rather than take chances with teachers who are untried and who may fail. They realize that constant dependence on inexperienced teachers who, as soon as they reach a degree of efficiency, transfer to towns with a more attractive salary schedule, lowers the educational standard. Competition for the services of the skilled, experienced teacher is keen. For the better teachers other fields offer attractive rewards. We want stability. This is one reason for the annual increment.

## Better Morale Through Appreciation

**Faithful Service Rewarded.** In one town with which the writer is familiar, there is an annual increment for four years, another at the beginning of the eleventh year, and still another at the beginning of the twenty-first year. Many other school districts follow the same principle with some variance as to detail. It is not probable that the schedule-making authorities in these towns consider that a teacher's efficiency increases for from 4 to 6 years, lies unimproved until the tenth year and then increases, fails to gain until the fifteenth or twentieth year and then increases again. Probably the main objective is to recognize faithful and efficient service over a period of years. This provision, theoretically at least, strengthens the morale of the teaching force.

**Credit for Previous Experience.** The fact that would seem to prove conclusively that the increment is largely on account of the theory that experience increases the efficiency of the teacher is that most school boards grant full credit on the schedule for teaching experience gained elsewhere. Some towns make specific qualifications and limitations. A very common provision is that full credit shall be given on the salary schedule for experience elsewhere up to a given number of years. This is a safeguard against a sudden inflation of the pay roll. It also provides that the teacher has something to look forward to. Still others frankly pay what they have to in order to get the teacher they desire. On the other hand, practically all towns give some consideration to the value of experience gained elsewhere.

## Evaluating and Rewarding Experience

While many towns allow full credit for experience elsewhere, others define the kind of experience. They stipulate that to be equated at full value, this experience shall have been under adequate supervision. Experience under wise supervision should be more valuable than experience where supervision is lacking or inferior. Some towns equate rural school experience at one-half value on the ground, no doubt, that the rural school teacher has not had practice in handling large numbers of children. Whether right or wrong, in individual cases, some towns

take the position that private-school experience is not equal in value to public-school experience for teachers entering the public-school service. These towns use a valuable principle which schedule makers would do well to consider, namely that all experience is not of equal value.

**Increments on Account of Experience.** The size of the increments and the number of them indicate the value which is placed on experience as modified by ability and willingness to pay. The size varies in different towns from \$25 to \$200. The most common is \$100. Some increase in a descending scale. Such a town would increase \$200 for two or three years, a number of years at \$150, a number at \$100, and some at \$50. Almost every kind of modification of this practice is found. The fixed increment on account of experience is, however, more common.

Differences in conditions and wealth make it impossible for the poorer towns to compete with the upper levels of the salary schedules in richer communities. Feeling that the capable teacher may remain so long as an increase is granted, many adopt a small increment. Others in a determination to meet the lower level of the salary schedule of richer towns, adopt a larger increment, reducing the maximum slightly with the idea of being reasonably sure of holding the desirable teacher for the two, three, or four years the increment is granted. The first method deals more justly with home teachers who remain and serve long years on the maximum salary. The latter would tend to delay the time when the ambitious teacher without home ties in the community, or those whom home ties bind less lightly, shall move on to a richer or more generous place. The schedule maker would do well to consider the respective merits of these two policies. To the writer the large increment seems much more effective in holding good teachers.

## Reasoned Differences in Increments

While some towns use a large increment in an attempt to hold experienced teachers, others use it in an attempt to secure them. They do not attempt to attract inexperienced teachers. They do make an attempt to attract forward-looking, experienced teachers by (1) having large annual increments, (2) by having a considerable number of these, and (3) by having a high maximum salary.

Where there is a difference, the size of the increment is greater in the high school than in the grades, and in some towns the number of increments for high-school teachers are greater than those of grade teachers. Such schedules may be partly due to a feeling that experience improves efficiency for a longer term in the high school, and partly due to a belief that the four years' preparation required of high-school teachers should lead to a longer professional development and a higher ultimate compensation above the minimum than would be expected for a graduate of a two-year normal school. The number of increments, however, is determined by the size of the increment and the maximum salary which it seems desirable and possible to pay.

**Schedules based on position.** The most frequent salary schedule is based on experience and position. Different minimum salaries are fixed for the elementary, intermediate, and high schools, which are automatically advanced by an annual increment to different maximum salaries for each type of school. Such a schedule is that which is given below.

McAndrew discredits the idea of automatic increases as "abhorrent to accepted principles of organization and of payment"<sup>1</sup> and illustrates

<sup>1</sup>McAndrew, *The Public and Its School*, 1916, p. 59, World Book Co., New York, Chicago.

Years of Experience	Elementary School	Grades 7 and 8	High School
0	\$ 950	\$1,000	\$1,200
1	1,050	1,100	1,300
3	1,150	1,200	1,400
4	1,250	1,300	1,500
5	1,350	1,400	1,600
6	1,450	1,500	1,700

his point by a picture of a teacher sound asleep in bed while the wagging pendulum of the clock automatically increases her salary. It is claimed that this kind of schedule fails to have a stimulating effect on the teaching force, does not reward achievement in professional performance, and is thus disheartening to the ambitious teacher. How some of the towns with schedules which are basically under this classification meet these criticisms is shown later. It is further claimed that all teaching positions are of equal importance and that distinctions made between different grades are artificial, based on purely unscientific considerations.

## The Argument for Variations

Those who advocate such a schedule defend it on several principles. It is easy to administer, avoids petty bickering for special favors, and eliminates jealousies and partiality. It sets up minimum qualifications for each position and recognizes preparation to the extent that salaries in the high school, where graduation from a four-year college course is required, are higher than those of the grades where the minimum requirement for new teachers is graduation from a two-year normal-school course. Those who do not meet a minimum requirement for merit are eliminated.

Many schedule makers, fully realizing that all the grades are of equal importance, believe that the seventh and eighth grades require special qualifications. A broader, more detailed and more understanding knowledge of subject matter is essential. At about this time the child leaves the more or less docile period of his development and enters the even more complex and difficult adolescent period. Discipline is more difficult. The over-age problem has accumulated. Temptations to leave school crowd. The child requires special guidance to an extent not so essential in the lower grades. The inexperienced teacher is not equal to the situation. Maturity and judgment are needed. Such is the argument of those who advocate a schedule for these intermediate grades higher than that of the elementary grades.

## The Junior-High-School Problem

The status of the junior-high-school teacher on the "position automatic" schedule is interesting. There seems to be a real problem here. Both normal-school and college graduates are employed in most junior high schools. Should these teachers receive the same salary as the elementary teachers or the high-school teachers, or should they be paid on a salary level between the two? To the writer it seems that the only course the defender of pay-by-position can take is that the graduate of two-year normal schools who are employed in the junior high school should be paid on a higher scale than those employed in the elementary grades, and that college graduates employed in the junior high school shall receive the same salary as those employed in the senior high school.

The normal-school graduates who teach in high school are selected for particular qualifications, and should be rewarded accordingly. We need strong teachers in these grades, and if a college graduate is used here, she should be mature, experienced, and efficient. The junior high school is no place for gaining experience which will lead to senior-high-school teaching. Junior-high-school teaching should be a career. Import-



tant as training is, experience and the personal qualities must be seriously considered in appointment. She should be the equal in every way of any teacher. Therefore, if she has equal training she should be paid a salary equal to that of the high-school teacher.

### Equal Pay for Equal Work

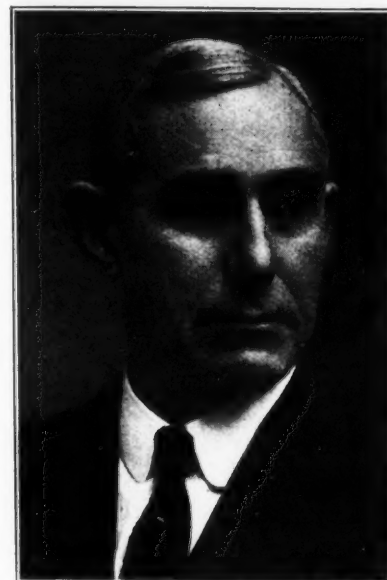
*The Single Salary.* "By a single-salary schedule is meant one which pays the same salary to teachers with equal training and experience whether they teach in elementary, intermediate, or high school."<sup>2</sup> Such a schedule is of recent conception. In 1919, Evenden reported that "all salary schedules make a marked distinction between the salaries for elementary, intermediate, and high-school teachers."<sup>3</sup> He boldly declared this principle: "Salary schedules should not make a distinction between different school divisions," and affirmed that "when this distinction is made in salary and in social status, there is no doubt that the distinction carries over to the educational relations as well."<sup>3</sup> By a single-salary plan a teacher of a first grade who has a bachelor's degree, is on a salary schedule identical with that of a teacher who has a similar degree, but is teaching senior English in the high school. On the other hand, any teacher with only two years of training beyond the high school, will receive the same salary if she teaches in the high school that she will if she teaches in the elementary school. Such a salary schedule is that given below which applies to all elementary and high-school teachers.

This type of schedule is rapidly gaining in popularity. According to a recent partial survey

demonstrates that a teacher with training qualifications for the senior high school often regards junior-high-school teaching merely as a step, a temporary stopping place, on the way to a senior-high-school position. The result is inexperienced and immature teachers in a stage of the child's education where there is special need of the skill and judgment which comes from experience. The single-salary schedule lends dignity and honor to the grade or junior-high-school position. There is no financial motive for seeking a senior-high-school job. Probably there are some single-salary schedules which as actually put into effect, are fully explained by the above. If the college graduate is desired in these grades, it seems to be necessary to recognize this fact by providing for equal payment.

### Cultured Teachers Needed in All Grades

There are other schedules which are founded on the theory that all stages of the child's development are of equal importance, a theory which most educators will accept. Many of the most ardent advocates of payment by position profess to recognize the equal importance of all positions. Schedule makers who adopt the single-salary schedule add to this the theory that teachers in the lower grades improve in efficiency by each year of training beyond the two years required for normal-school graduates. They point out that the study of child psychology, method, and all the sciences that minister to teaching efficiency have so developed that two years' training is insufficient for the best preparation in the science and art of teaching. They desire teachers with background and cul-



DR. F. B. DRESSLAR

ture. Hence, they seek to attract teachers with three and four years of training to the lower grades as well as the higher by a salary schedule which recognizes their superior preparation.

Those who oppose the single-salary schedule say that this type of schedule is as truly automatic as the position automatic type which it replaces. Extensive technical preparation is as important in the high school as in the grades and a much broader knowledge of subject matter is required. Two-year normal-school graduates or teachers with only two years of training are not often employed in high school except in special subjects. Even under this plan, college graduates are seldom employed in the grades. Few of our higher institutions are organized to give a four-years' course that will be of equal profit to lower grade and high-school teachers. Special qualities are required of teachers in some grades more than in others. Training is not an infallible guarantee of good teaching.

(To be Concluded)

### THE PASSING OF DR. DRESSLAR

The death of Dr. Fletcher B. Dresslar, which occurred on January 19, at Nashville, Tenn., following an attack of heart disease, removes a most active and virile figure from the school field, a man who had maintained a deep and abiding interest in education and who had given unselfishly of his time and energy to the up-building of American school architecture and the promotion of good school hygiene. His death at the age of 71 came at a time when he was still active in the world's work and in the promotion of a work which he loved and which he was zealous in promoting throughout the country. It was his wide knowledge and extended experience, coupled with his active spirit,

which made him a national authority on school-house design and construction. Dr. Dresslar became nationally known through his work as a specialist in the United States Office of Education, and more recently as a result of his work as professor of school hygiene at Peabody College, a position which he had held for the past seventeen years. He had also been active in the promotion of good school architecture in the south through the Rosenwald Foundation and his work in connection with the Interstate School Building Service for the southern states.

Dr. Dresslar was born at Banta, Ind., September 21, 1858. He received his professional education at Indiana University and at Clark University. His educational career was begun in 1882 as a teacher in the country schools prior to receiving his first degree. Following his graduation from the University of Indiana, he became a principal at Princeton, Ind., and the next year was superintendent of schools. He received a bachelor of arts degree from Indiana University in 1889. Three years later he was awarded the master of arts degree by the same school, and in 1894 took his doctor of philosophy degree at Clark University, Worcester.

He became professor of psychology and education at the State Normal School of Los Angeles, Calif., in 1894, where he remained until 1897, when he resigned to become assistant professor of the science and art of teaching at the University of California, which he held from 1897 until 1906. In 1906 he became associate professor.

He remained at the University of California until 1909, when he went to the University of Alabama as professor of education and dean of the school of education. In October, 1911, he was appointed specialist in school hygiene in the United States Office of Education. He resigned in 1912 to accept the position of professor of school hygiene at Peabody College, Nashville, Tenn., which he had held continuously up to the time of his death.

In addition to his monumental work as a professor of school building design and hygiene, Dr. Dresslar became well known to the educators of the country for his contributions to educational literature in the form of books, pamphlets, and magazine articles dealing with the subject of school architecture. Dr. Dresslar's most recent, and possibly his greatest, work was done at Peabody College, where he conducted courses in school-building design and construction. He was responsible for the training and development of the various directors of schoolhouse planning in the southern states and was active in the work of the National Council on Schoolhouse Construction and the Interstate School Building Service.

Class	Training	Minimum Salary	Number of Increments	Amt.	Maximum Salary
1	2 years Normal	\$1,200	8	75	\$1,800
2	3 years Normal	1,350	7	65	1,945
3	4 years College B.A. or B.S.	1,500	8	100	2,300
4	5 years College M.A.	1,700	9	125	2,825
5	7 years College Ph.D.	2,000	10	150	3,500

made by the Research Division of the N.E.A., not less than 153 cities have the single-salary schedule in practice.<sup>4</sup> Sooy<sup>5</sup> found that 16 per cent of the American cities are using it.

### Supporting Ambition to Rise

Advocates of this basis of determining salaries claim definite merits for it. Such a schedule is not difficult to administer. Grade teaching is enriched and strengthened by more breadth of knowledge and more technical preparation than is represented by the two years of normal training, which is now the minimum requirement for entering the service in the elementary schools. The single-salary schedule is an incentive to further preparation in both grade- and high-school positions and makes it economically practical. An ambitious grade teacher with unusually extensive training is recognized on the salary schedule and does not need to transfer to higher grades or the high school for salary reasons. Well-trained teachers, finding promotion in the teaching field, need not necessarily seek administrative positions on financial grounds.

It is safe to say that one movement which has given impetus to the single-salary schedule is the desire to secure teachers with college degrees in the seventh and eighth grades or junior high schools. Extent and breadth of accurate knowledge of subject matter as well as mastery of technique are much to be desired. Experience

<sup>2</sup>"The Scheduling of Teachers' Salaries," *Research Bulletin*, Vol. V, No. 3, N.E.A., May, 1927, p. 161.

<sup>3</sup>Evenden, E. S., "Teachers' Salaries and Salary Schedules in the United States," *N.E.A. Commission Series No. 6*, 1919, p. 145.

<sup>4</sup>"Practices Affecting Teachers Personnel," *Research Bulletin of the N.E.A.*, Vol. VI, No. 4, Sept., 1928.

<sup>5</sup>Sooy, Wendell, "The Single Salary Schedule," *Education*, January, 1929.



# The Duties of Public-School Administrators—X

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In discussing the various duties which are performed by public-school administrators, the following special fields of educational administration have been treated: general control, executive management, business management, personnel management, the management of pupils, the curriculum, special activities, and instruction. These eight fields of administrative service cover a comprehensive array of executive duties, but there still remains a special field of administrative activity which has developed, largely in recent years, to the place where it must be accorded definite treatment in any comprehensive study of the entire field. This is the field of special services.

## XII. SPECIAL SERVICES

The public-school program has been extended, particularly during the present century, to include numerous types of educational service which go far beyond the regular offerings of the conventional curriculum. Many of these extra-curriculum services have already been described elsewhere in the present series of articles.<sup>1</sup> There still remains a group of special services which do not fit readily into any of the eight types of administrative activity which have now been treated. This final group includes such services as health service, library service, educational guidance, and the transportation of pupils. In many schools these services are regarded as fundamental parts of the regular educational program, but as a whole, they are more than likely to be regarded as accessory activities, their presence or emphasis depending largely upon affluent financial conditions. In spite of this secondary position the special services included in the present section have involved an important share of the attention of public-school administrators. The present investigation shows that out of a total of 1,000 duties which were performed by public-school administrators during a given year, 116 duties were devoted to special services. They may be classified as follows:

Duties	
1. Special Health Services.....	23
2. Cooperation with Health Officers.....	15
3. Library Services.....	14
4. Guidance.....	24
5. Transportation of Pupils.....	17
6. Playground, Lunch, and Miscellaneous....	23

The values of these duties and the relative frequency with which they are performed will be treated in greater detail in the sections to follow.

### 1. Special Health Services

There is much evidence which indicates that increased attention is being given to health and physical education in the public schools of the United States. The most conspicuous evidence of this fact is found in the increased time allotment given to physical education in the elementary schools and the increased number of teachers and supervisors of physical education who are employed as regular members of the teaching staff. In addition to these regularized school activities, the increasing emphasis on health education has introduced a number of duties the performance of which in many school systems has fallen to the lot of principals and superintendents. A group of such duties is exhibited here as Table XLV.

Table XLV contains 23 administrative duties pertaining to special health service and is arranged on the same general plan that has characterized the previous tables in the series of

TABLE XLV. ADMINISTRATIVE DUTIES PERTAINING TO SPECIAL HEALTH SERVICE  
(Frequencies are *d* for daily, *w* for weekly, *m* for monthly, *y* for yearly, *y*<sup>2</sup> for twice a year, etc. Values are 1 for primary, 2 for average, 3 for minor, and 0 for no importance.)

DUTY	Percentage of Administrators Performing				Median Frequency Supt.	Median Value
	Supt.	Gen. Prin.	H. S. Prin.	E. S. Prin.		
1. Exclude sick pupils from classes.....	73	82	70	81	<i>m</i>	2
2. Maintain first-aid cabinet.....	62	66	52	71	<i>y</i>	2
3. Give first aid.....	58	75	60	81	<i>y</i> <sup>2</sup>	2
4. Visit sick pupil.....	53	59	63	49	<i>y</i> <sup>2</sup>	3*
5. Give health talk.....	51	65	42	59	<i>y</i> <sup>2</sup>	2
6. Persuade pupils to stay out of doors.....	50	68	44	76	<i>m</i>	2
7. Care for ill pupil.....	39	48	50	63	<i>y</i> <sup>2</sup>	3
8. Discover pupils who need glasses.....	38	40	24	49	<i>y</i> <sup>2</sup>	3
9. Supervise health-crusade movement.....	37	32	16	49	<i>y</i>	2
10. Supervise physical examinations.....	34	34	23	32	<i>y</i>	2
11. Correct posture.....	27	40	28	59	<i>y</i> <sup>2</sup>	3
12. Instruct in personal hygiene.....	23	39	19	41	<i>y</i> <sup>2</sup>	3
13. Weigh children.....	21	26	13	49	<i>y</i> <sup>2</sup>	0*
14. Measure children.....	21	25	13	51	<i>y</i> <sup>2</sup>	0*
15. Make underweight survey.....	18	17	9	34	<i>y</i>	3
16. Secure employment of school nurse.....	18	9	14	12	<i>y</i>	1*
17. Organize dental clinic.....	17	6	6	15	<i>y</i>	1
18. Inspect for defective teeth.....	15	17	10	24	<i>y</i>	3
19. Issue weight cards to parents.....	15	15	9	32	<i>y</i> <sup>2</sup>	3
20. Organize medical clinic.....	14	6	8	7	<i>y</i>	2
21. Advise individual pupils in sex hygiene.....	11	23	15	15	<i>y</i> <sup>2</sup>	3
22. Inspect homes with respect to health.....	9	5	6	15	<i>y</i> <sup>2</sup>	0*
23. Organize nutrition class.....	5	0	2	15	<i>y</i>	2
Average.....	31	35	26	43		

\*More than one half of the judges assigned this value.

articles. The 23 duties are ranked in order according to the relative percentages of superintendents performing them. For example, the first duty listed, *Exclude sick pupils from classes*, was performed by 73 per cent of the superintendents, as contrasted with the second duty, *Maintain first-aid cabinet*, which was performed by 62 per cent, and the last duty, *Organize nutrition classes*, which was performed by only 5 per cent. As a whole, this group of duties was not popular with the superintendents as were many of the preceding groups.

The outstanding feature of Table XLV is the comparatively high performance of health duties (43 per cent) manifested by the elementary-school principals. This particular set of administrative duties appeals significantly to elementary-school principals, scarcely a duty appearing in the performance of which he does not outdo the three other groups represented. The elementary-school principal is comparatively lowest in performing the fourth duty, *Visit sick pupil*, but in many of the duties such as *Care for ill pupil*, *Supervise health-crusade movement*, *Correct posture*, and *Weigh children*, he far outstrips the remaining executives. On the contrary, the high-school principal seems least active of the several groups of executives in con-

nection with health services. The single duty which he performs more commonly than any of the other administrators is *Visit sick pupil*.

It is evident from the values assigned to the various administrative duties which pertain to special health services that the 50 judges who rated the various duties did not consider the majority of these duties important from the point of view of their being performed by the superintendent of schools. Only two duties, *Secure employment of school nurse* and *Organize dental clinic*, were rated as being of primary administrative importance. Three duties, namely, *Weigh children*, *Measure children*, and *Inspect homes with respect to health*, were rated by over one half of the judges to be without value as administrative duties, while many others were marked as being of little administrative importance. This does not necessarily mean that these duties are not considered educationally important, but that they are not significant as administrative duties. It should be noted in this connection that nine of the duties such as *Maintain first-aid cabinet*, *Give health talk*, and *Supervise health-crusade movement* were rated as average in administrative value. All except two of these were among the first ten in administrative popularity.

TABLE XLVI. ADMINISTRATIVE DUTIES PERTAINING TO COOPERATION WITH HEALTH OFFICERS

(Tabular arrangement and symbols as in Table XLV.)

DUTY	Percentage of Administrators Performing				Median Frequency Supt.	Median Value
	Supt.	Gen. Prin.	H. S. Prin.	E. S. Prin.		
1. Report contagious disease.....	63	65	51	59	<i>y</i> <sup>2</sup>	1*
2. Call doctor.....	49	60	37	49	<i>y</i> <sup>2</sup>	2
3. Report cases of illness.....	45	42	35	59	<i>y</i> <sup>2</sup>	2
4. Discuss health problem with nurse.....	41	48	37	59	<i>m</i>	1*
5. Report pupils needing care to nurse.....	31	37	35	68	<i>m</i>	2
6. Facilitate remedy of physical defects.....	29	23	16	44	<i>y</i> <sup>2</sup>	2
7. Supervise health inspection.....	28	23	20	34	<i>y</i> <sup>2</sup>	2
8. Help with health tests.....	26	17	10	46	<i>y</i> <sup>2</sup>	3
9. Inspect health certificates.....	26	25	21	44	<i>y</i> <sup>2</sup>	2
10. Enforce vaccination regulations.....	24	28	23	29	<i>y</i>	1*
11. Send out nurse's report to parents.....	22	25	17	15	<i>y</i> <sup>2</sup>	3
12. File vaccination certificates.....	17	23	17	34	<i>y</i>	3
13. Report reasons for absence to nurse.....	14	11	17	37	<i>m</i>	3
14. Assist dental clinic.....	12	9	12	22	<i>y</i>	2
15. Help give vaccinations.....	8	6	6	17	<i>y</i> <sup>2</sup>	0*
Average.....	29	30	24	41		

\*More than one half of the judges assigned this value.

<sup>1</sup>See particularly the article on "Special Activities" in the December, 1929, AMERICAN SCHOOL BOARD JOURNAL, which deals with such activities as athletics, student organizations, and school publications.



TABLE XLVII. ADMINISTRATIVE DUTIES PERTAINING TO THE LIBRARY  
(Tabular arrangement and symbols as in Table XLV.)

DUTY	Percentage of Administrators Performing				Median Frequency Supt.	Median Value
	Supt.	Gen. Prin.	H. S. Prin.	E. S. Prin.		
1. Buy books for the library.....	85	71	59	44	y <sup>2</sup>	1*
2. Select new library books.....	81	88	74	66	y <sup>2</sup>	2*
3. Appoint librarian.....	68	75	59	44	y	1*
4. Supervise work of librarian.....	59	59	57	51	m	2
5. Prepare set of library rules.....	53	46	46	41	y	2
6. Organize room library.....	43	40	34	44	y	2
7. Search for missing library books.....	41	46	45	56	y <sup>3</sup>	3*
8. Train pupils in use of library.....	39	50	34	60	y <sup>2</sup>	3
9. Recommend books for public library.....	33	29	30	22	y <sup>2</sup>	2
10. Arrange for binding.....	22	12	16	12	y	2
11. Organize outside library service.....	14	18	19	22	y	2
12. Prepare notices for overdue books.....	14	17	10	17	m	0*
13. Act as librarian.....	13	17	6	24	m <sup>2</sup>	0*
14. Check attendance in library room.....	13	22	14	17	w	3
Average.....	41	42	36	37		

\*More than one half of the judges assigned this value.

## 2. Cooperation with Health Officers

A second set of the health duties which are performed by public-school administrators is given in Table XLVI. These duties pertain particularly to administrative attempts to cooperate with various types of health officers. *Report contagious disease* is the most commonly performed duty in this group, and *Help give vaccinations* the least commonly performed.

Here again, as in connection with special health services, the elementary-school principal is the chief performer and the high-school principal is the least common performer. There can be no question concerning the fact that the elementary principals are paying more attention to matters of health than are high-school principals. The cooperative duties exhibited in Table XLVI are rated at a somewhat higher administrative level than those pertaining to special health services listed in Table XLV. Two thirds of the cooperative duties were rated to be either of first or of average administrative importance, and only one, *Help give vaccinations*, was rated to be without administrative value. There is a noteworthy discrepancy of performance in connection with two of the duties rated as having primary administrative value; namely, *Report contagious disease* and *Enforce vaccination regulations*. Approximately two out of every three administrators report contagious diseases, while only one out of four enforce vaccination regulations. It is rather surprising to find so many executives performing the administratively non-important duty, *Help give vaccinations*. Seventeen per cent of the elementary-school principals engaged in that activity during the year of work under investigation. This type of activity reflects commendable interest rather than praiseworthy administrative activity.

## 3. Administrative Duties Pertaining to the Library

The administration of library work in the public schools of the United States is far from being standardized. In some schools, library work suffers from practically total neglect; in other schools it is cared for by numerous types of organized libraries up to the level where library work is credited as a regular subject or even made the chief basis of all schoolwork. All sorts of public-school-library units from loan packages to comprehensive libraries are in existence, and all sorts of administrative control from student to outside specialist are exercised over school libraries. Naturally the relation which exists between public-school administrators and the control of school libraries varies greatly from city to city, but a number of administrative duties associated with library work are performed by practically all public-school administrators. This group of duties is presented here in Table XLVII, together with other library duties less commonly performed.

The 14 library duties listed in Table XLVII do not form an extensive list of administrative

duties, but as a group they are fairly popular with the public-school executives. The selection and purchase of library books, the appointment and supervision of the librarian, and the organization of library facilities, constitute the great

importance. The duties which pertain to personal library work, such as *Search for missing library books*, or *Act as librarian*, were judged to be of little or no administrative value. All four types of executives participate about equally in library work, the elementary principal having considerably less to do with purely administrative duties, but comparatively more to do with technical library work. One fourth of them, for example, act on the average as librarian two times per month. For further details the reader is referred to the data exhibited in Table XLVII.

## 4. Administrative Duties Pertaining to Guidance

Educational guidance—"bringing pupils into contact with influences that should give direction and purpose to their lives"—has risen to a position of major importance as a function of public-school education since the beginning of the twentieth century. Probably the most significant evidence of this fact is the recent growth of the junior high school with guidance as one of its leading general objectives.<sup>2</sup> The

TABLE XLVIII. ADMINISTRATIVE DUTIES PERTAINING TO GUIDANCE  
(Tabular arrangement and symbols as in Table XLV.)

DUTY	Percentage of Administrators Performing				Median Frequency Supt.	Median Value
	Supt.	Gen. Prin.	H. S. Prin.	E. S. Prin.		
1. Advise student concerning higher educational training.....	90	93	93	46	m	1*
2. Write letter of recommendation.....	84	81	78	44	m	2
3. Advise students concerning election of courses.....	82	80	86	32	y <sup>2</sup>	2
4. Advise pupils concerning leaving school.....	82	91	79	68	y <sup>4</sup>	1*
5. Help graduates select colleges.....	82	68	81	5	y <sup>2</sup>	2
6. Recommend students to college.....	77	75	80	2	y <sup>3</sup>	2
7. Help pupil having special problem.....	68	75	72	46	m	2
8. Advise pupil concerning life work.....	68	59	80	47	m	1*
9. Help graduates obtain positions.....	64	42	56	12	y <sup>3</sup>	3
10. Help pupil with moral problem.....	59	55	60	61	y <sup>4</sup>	1*
11. Give instructions to new pupils.....	58	71	71	44	y <sup>2</sup>	3
12. Help graduates plan college schedules.....	50	42	43	5	y <sup>2</sup>	3
13. Visit pupil in difficulty.....	43	37	39	39	y <sup>4</sup>	2*
14. Pass on request of indigent pupil.....	40	28	28	46	y <sup>4</sup>	1
15. Serve as boys' adviser.....	31	35	30	32	y	3
16. Visit prospective pupils.....	25	20	30	10	y <sup>2</sup>	3
17. Organize course in vocational guidance.....	22	20	19	7	y	1*
18. Study pupil's vocational record.....	22	20	20	20	y <sup>3</sup>	2
19. Report case to juvenile court.....	21	17	20	32	y <sup>2</sup>	2
20. Report case to welfare organization.....	20	15	13	27	y <sup>2</sup>	2
21. Serve as girls' adviser.....	13	17	8	17	y <sup>2</sup>	3
22. Recommend pupil to vocational counselor.....	9	3	8	7	y <sup>2</sup>	2
23. Give vocational test.....	5	9	6	10	y <sup>2</sup>	2
24. Help mother secure mother's pension.....	5	5	1	0	y	3
Average.....	47	44	46	27		

\*More than one half of the judges assigned this value.

bulk of administrative activity. With one exception, *Check attendance in the library room*, these duties are all performed on a monthly or a yearly basis. The majority of them are considered to be of primary or average administra-

extent to which educational and vocational guidance has involved the work of superintend-

<sup>2</sup>See National Education Association Department of Superintendence Fifth Yearbook, *The Junior-High-School Curriculum*, 1927. (Continued on Page 132)

TABLE XLIX. ADMINISTRATIVE DUTIES PERTAINING TO THE TRANSPORTATION OF PUPILS  
(Tabular arrangement and symbols as in Table XLV.)

DUTY	Percentage of Administrators Performing				Median Frequency Supt.	Median Value
	Supt.	Gen. Prin.	H. S. Prin.	E. S. Prin.		
1. Study transportation problem.....	42	37	21	29	y <sup>2</sup>	1*
2. Receive reports from drivers.....	24	20	7	7	m	1*
3. Order cars for special occasions.....	23	31	21	20	y <sup>3</sup>	2
4. Prepare time schedule.....	22	20	1	5	y	1*
5. Oversee drivers.....	22	15	5	5	m	2
6. Draw up rules for drivers.....	21	14	6	5	y	1
7. Make preliminary trip over routes for timing purposes.....	20	11	6	7	y	1*
8. Select drivers.....	16	0	6	2	y	1*
9. Reroute trucks.....	15	6	5	2	y	1*
10. Supervise seating of pupils in truck.....	13	12	5	2	y <sup>2</sup>	3
11. Meet busses in morning.....	13	23	3	2	w	0*
12. Draw up drivers' contract.....	13	2	3	0	y	1*
13. Dispatch busses in afternoon.....	12	15	6	2	w	0*
14. Supervise repairs and replacements.....	9	5	3	7	y <sup>4</sup>	3
15. Do transportation clerical work.....	8	9	3	0	w	0*
16. Arrange for supplementary transportation (e.g., street cars).....	6	3	2	7	y <sup>2</sup>	1*
17. Drive bus.....	2	0	2	2	y <sup>5</sup>	0*
Average.....	17	13	6	6		

\*More than one half of the judges assigned this value.



# Executive Realism in School Administration

O. A. Anderson, Stanford University, California

The functions of research specialists who develop theories and of practitioners responsible for getting material results are fundamentally different. Whereas the former works upward toward generalizations, the latter works downward toward particulars. If one takes abstractions into the clouds, the other must bring them down to earth. The skillful executive is one who can translate generalized principles so that they become specifically adaptable to his particular problems. An executive who is too credulous in accepting propounded theories or who applies established principles without necessary adaptations is impractical.

For a work-a-day executive to be impractical is an unpardonable sin, but a specialist in pure science is not restrained by practicalities. Division of labor between groups implies not only a difference of interests or abilities, but of restraints and privileges as well. Therefore it is unjust to criticize the developer of theory for being visionary or to condemn the practical executive for being conservative. One cannot expect an eagle to swim nor a beaver to fly. A research specialist functions best if given unrestrained freedom for testing his hypotheses, while the executive specialist serves best when he can link the principles of organized science to his problems in a practical way.

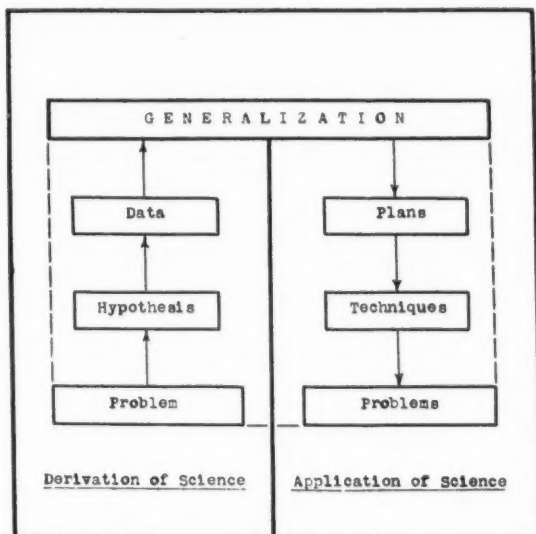


FIG. I

## Difference of the Groups

The diagram above (Fig. 1) illustrates the distinctive functions on the part of those who are largely concerned with the development of science and of those who are interested in its application. Their interests are not opposed to each other, but are simply different. The one group is occupied with the formulation of generalized abstractions, while the other is concerned with their application to reality. These sweeping abstractions may be in the form of principles, theories, or scientific laws. They are the climactic result of inductive research involving the recognition and definition of a problem, the formulation of an hypothesis for its solution, the collecting and arranging of data, and the extracting of a generalization. And, like the scientist, the executive also starts a train of activities when a serious problem has been encountered. But to find a comprehensive solution he must reach up to the abstractions of organized science, and in the light of principles made available to him is able to formulate general plans and specific techniques which will be needed to dispose of the problem in question.

Within the executive field itself there may be an applied kind of research which has to do with a clerical type of fact finding or with the em-

pirical solution of certain problems, but the motive is not to find truth for truth's sake or to develop the scope of abstract science; the aim is to secure immediate and practical results. Also, there are particular instances in which the same individual may be concerned with both the derivation and application of principles, but, in the main, the generalizations of science are developed by specialists to be found in experimental laboratories and universities, while practitioners are to be found among engineers and executives "out in the field." In this way we have a substantial division of labor between those who derive principles and those who apply them.

## Nature of Generalizations

Since one of the greatest pitfalls for an executive is the impractical use of available theories and principles for his problems, he should understand the nature of generalizations. To begin with, a generalization is an unreal thing, an outgrowth of the imagination. A principle or a law as developed by a scientist is what he reads into nature and not what he actually finds there. A generalized principle is one that is divested of the variable and modifying factors which are found under actual conditions of life. It is a truth in pure form and, like the "pure air" which we presumably breathe, does not exist in reality. Consider the law of falling bodies that we find in physics. This law which is so aptly defined in science does not describe the way in which falling bodies actually behave in reference to the earth. Rather, it describes the way falling bodies would fall in a vacuum (but there is no true vacuum), with consideration of conditions at sea level (but there is no constant sea level), and it is presumed that the body would fall toward the center of the earth (but the center shifts, and many objects fall at an angle). The law of falling bodies is thus not a "natural" law for it disregards the differential factors of atmospheric and lateral pressures, together with other variables, such as are found under actual conditions. At best, a principle gives an incomplete description of facts. A generalization may be true in theory, but not in reality; a well-informed executive is ever mindful of this paradox.

## Danger of Enticing Theories

A practitioner who is not realistic in his attitude toward the principles in organized science is likely to ascribe undue powers to them. The apparent simplicity and potential worth of a generalized concept makes it intriguing. A school executive learns about the normal-distribution theory as a basis for giving class marks, and assumes that by its application he can wipe out the problems of marking at a stroke; he overlooks the fact that the normal-curve device may become a mere camouflage by which individual teachers and the school can disguise poor standards of achievement. It is true that the marks given may take a normal form of distribution, but the actual performance standards of the school may be very much skewed when judged by the criterion of good practice in education.

The danger of an enticing theory to a practitioner lies in its soporific influence. Because it is more or less sound in an abstract way, he is lulled into the belief that it holds equally true in an applied situation. In this way a school executive is beguiled into a modern form of fetish worship in which he ascribes mythical and far-extending powers to the products of theorists. Primitive man ascribed magical powers to physical objects, but modern man has assigned ex-

travagant qualities to mental concepts, such as Herbartianism, the transfer theory of learning, the normal-distribution curve, the I.Q. It is a human urge that supernatural qualities should be attached to promising concepts; and, as far as education goes, the passive acceptance of theories through an authoritarian type of training has aided and abetted this tendency. But a realist in education consciously tries to inoculate himself against misguidance.

## Complications of Applying Principles

Having appreciated that scientific generalizations are but concepts of the imagination and that they are not objects to be idolized, the executive may consider further implications of applied science. Figure 2 illustrates how principles

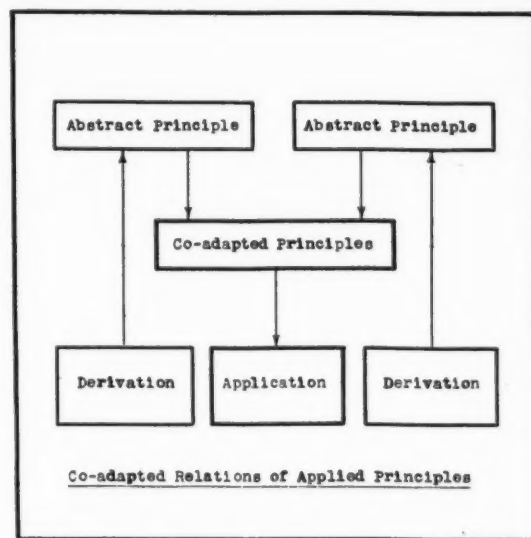


FIG. II

and laws are rarely applied to problems in an isolated way; they are usually applied in compound form, involving perhaps several principles. The normal-distribution theory of marking is made more valuable when tempered by the principle of standardization; a schoolhouse is made practicable not by the principle of layout alone, but by consideration for the additional principles of lighting, ventilation, safety, and expansion as well. The problem of the one who applies science is to bring about a coadaptive adjustment of principles according to the nature of the specific solution where application is to be made.

A skilled user of principles, realizes that after the inductive scientist has worked up his data into a generalization and it has left his hands, the principle or law concerned is rarely reapplied to the source whence it came except for purposes of verification. In other words the path of a generalized principle from its derivation to its application is not reversible; the situation to which the principle becomes applied is new. Because a generalized concept must be adapted to thousands of differing situations and in varying combinations with other principles, it has to be kept in general form when turned out by its originator. With the abstraction achieved, the research specialist's duty is done; method of application is a responsibility that the executive specialist assumes.

The practitioner cannot bear in mind too strongly that principles when once formulated are relatively simple, while the situations to which they are applied are infinitely variable and often complex. It is axiomatic in science that such elementary objects as grains of sand each have their individuality—that there are no two specimens exactly alike. This characteristic of individual differences becomes even

(Concluded on Page 135)





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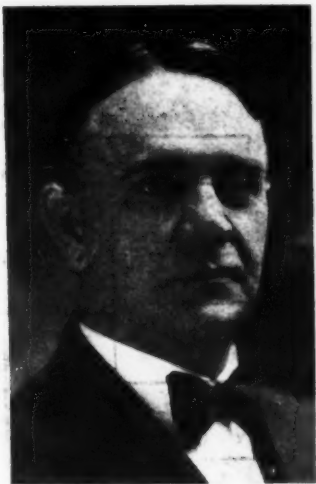
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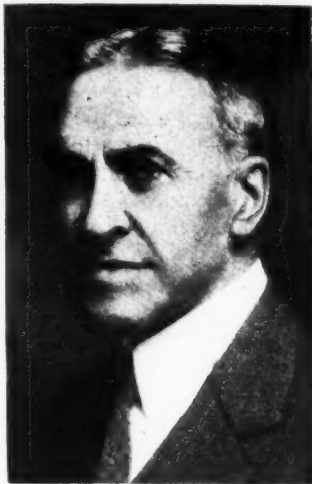
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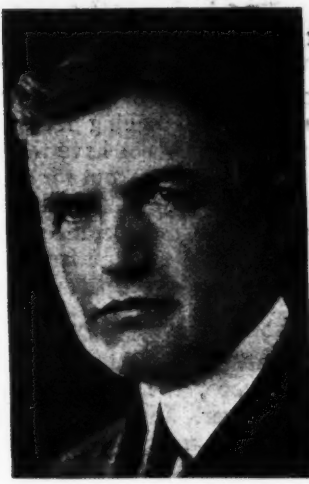




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#### A NATION-WIDE EDUCATIONAL SURVEY

The 70th Congress authorized a three-year survey of secondary education in the United States to be conducted by the Department of the Interior through the Office of Education. The total cost of this authorized survey is not to exceed \$225,000; fifty thousand dollars of this amount is appropriated for the current fiscal year.

Under the provisions of the appropriation measure the survey is to be "of the organization, administration, financing, and work of secondary schools and of their articulation with elementary and higher education." Specialists and experts from the field may be employed for temporary service without reference to the Civil Service Act.

The portraits presented herewith show the list of educators that has been chosen to serve as the consulting committee. There are three members of the group whose portraits we were unable to procure in time for publication. These are J. D. Jelfe, University of Missouri; A. Laura McGregor, Rochester, N. Y., and W. L. Uhl, University of Washington. The group will assist Commissioner John William Cooper, Director L. V. Koos, and the members of the administrative organization, which consists of the following members: H. V. Church, Cicero, Ill.; Ellwood P. Cubberley, Stanford University, Calif.; James B. Edmonson, University of Michigan, Ann Arbor; Charles H. Judd, Chicago, Ill.; Charles R. Mann, Washington, D. C.; A. B. Meredith, Hartford, Conn.; John K. Norton, Washington, D. C.; Joseph Roemer, Gainesville, Florida; Wm. F. Russell, New York, N. Y.



CHARLES R. MAXWELL,  
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Laramie, Wyoming

#### THE SCHOOL-TAX PROBLEM IN CALIFORNIA

The educators of California are turning their attention to taxation. Elmer H. Staffebach, director of research of the California Teachers' Association, has brought out some studies on the subject.

He recently said something about luxury taxes, proceeding upon the thought that the ability of the state to support public costs is largely established by its private expenditures. These are based, he holds, upon the economic ability of the individual.

The total cost of elementary, secondary, and higher education in California, for the year 1926 was \$151,217,259. During the same year the people of the state expended the sum of \$379,383,488 for such luxuries as automobiles, tobacco, soft drinks, movies, jewelry, cosmetics, and the like.

Mr. Staffebach contending that the tax burden placed upon property is altogether too heavy, turns his attention to the income-tax idea. Here he says: "The income tax, or some form of tax which will be closely related in its administration to individual incomes, seems most nearly to approach the ideal tax."

Obviously, in the belief that a serious discussion of the income tax is premature, the expert suggests the luxury tax, and says: "The luxury tax is a special type of sales tax, assessed against the buyer of certain articles or commodities specifically defined as luxuries. As we go from individuals of small incomes to in-

dividuals of large incomes, the proportion of expenditures for luxuries increases enormously. Logically, at least, the luxury tax is more desirable than a general sales tax on all purchases, in that the individual with the small income, who devotes a large proportion of his money to necessities, escapes much of the burden. On the other hand, the individual who buys heavily of luxuries pays heavily under the tax."

He adds that a 1-per-cent luxury tax would in all probability net an annual revenue of over three and one-half million dollars.

#### SHALL THE NONRESIDENT TEACHER BE BARRED?

The school board of Boston, Mass., was presented with a resolution which seeks to bar from the employ of the school system all non-resident teachers. The proponent of the measure held that some 1,600 teachers, now in the employ of the Boston school system, reside in the immediate neighboring towns, that some of them have invested in permanent homes, and

Teachers defeat the big purposes of education if they antagonize their boys and girls, if they disregard their feelings, if they allow pupils to fail, if they attach more importance to techniques and examination results and records than to discovering and ministering to the needs of their pupils as prospective, efficient, and happy citizens.—Harrison Van Cott.

are spending their earnings in the towns in which they reside. He contended that they ought to spend their money in Boston where they earn it. He further asserted that some 400 resident teachers are obliged to seek positions elsewhere, and that other towns are discriminating against Boston teachers and favoring their own home talent.

The arguments made by those who oppose the measure were to the effect that in the choice of teachers, character and fitness must decide rather than the accident of residence. Chairman Gray of the board held that the highest standards must be adhered to and to restrict the choice of good teachers will be a detriment to the children. Superintendent Burke said the quality of the teacher's instructions is of infinitely greater importance than his place of domicile.

Mr. Hurley, a member, said: "Our citizens are interested in our attitude. I have this thought which I would like brought out. Two thousand or more years ago every city was surrounded by a wall, and city warred against city—Athens against Sparta, or Athens against Syracuse! But we have thrown down the walls. America is not composed of walled cities. We are a great, unified whole."

When the order, which sought to require all teachers to be appointed after February 1, 1930, to become legal residents of the city of Boston, came up for final disposition after it failed of passage, it was voted down.

A similar proposal presented to the St. Louis, Mo., board of education last year was defeated.



# Getting an Executive Position

Orville C. Pratt, Superintendent of Schools, Spokane, Wash.

Among the problems which the school administrator must face not only when he first enters upon his profession, but also at intervals in his career, is that of getting a position. The schoolman cannot, as a rule, grow in a single position; he must of necessity change, enter other and larger schools, and work in large communities. Few, indeed, are the schoolmen who give the problem of getting a new and better position the consideration which its importance merits. Regarded in a broad way, it is in a very real sense basic to the solution of every other administrative problem.

Getting a position, whether applied for directly or secured indirectly as the result of a professional reputation previously established, is a problem of "selling." As such, it has a technique and is subject to the same general laws which control sales in other fields. Theoretically, the position should seek the man; but, practically, the best man available for any given position may be overlooked, unless he places himself in position to be found. If, as frequently happens, the choice does not fall upon the man capable of rendering the best service, the reason is quite likely to inhere in the neglect of the art of salesmanship on the part of the applicant. The average schoolman knows much less about salesmanship as applied to his services than the average commercial salesman knows about selling his wares. If a knowledge of selling technique is essential to the success of the latter, certainly such knowledge cannot be without value to the former.

Let it be understood at once that there is no thought here of suggesting a knowledge of salesmanship as a means by which an incompetent candidate may obtain a job for which he is not qualified. Rather it is suggested as a means by which the best-qualified candidate may have more assurance of his selection. The better qualified a candidate is, the more certain it is that he will profit by a proper application of selling technique. It is the inferior article always which is at a disadvantage when equal salesmanship is behind a superior competing article.

## Phases of Salesmanship

As analyzed by writers on salesmanship, there are several steps or stages, in the sales cycle. The six are obviously: attention, interest, desire, confidence, decision, and satisfaction. The purpose here is not to give a detailed discussion of these phases of salesmanship. Such a discussion can be obtained by reference to any recent book on salesmanship available in any library.

The first law of salesmanship is to "attract attention." It is obvious that this is the first step by which a buyer obtains the services of a new man, as well as those of a new automobile. The problem of the schoolman is how the attention of those in an employing capacity may best be attracted to him. As it works out in practice, the initiative seems to come from the candidate in about half the cases of employment, and from the employer in the other half.

## The Correspondence Method

If the candidate takes the initiative, he may do so by correspondence directly himself, or indirectly through others. Of these two methods, the latter is better. If the candidate writes first, his letter may receive scant attention. If he has already been written about, and his name is recognized, his letter will command a more careful reading. This is particularly true, if the person first directing attention to him is well situated to judge of his fitness for the position, and is a recognized authority. Every schoolman, therefore, should make it a point to keep in touch with those among his acquaintances

whose recommendation has most weight. He should guard against calling for such service frequently, and should not have the reputation of always being on the lookout for another position. Sometimes the candidate will discover that he and the employer have a mutual friend. In that case, a letter from such a friend is of great value, because of the direct personal connection.

## Letters of Application

In any event, if the matter is to be handled by correspondence, the candidate must also write the employer. To everyone who is in a position to receive many written applications, the carelessness which characterizes their preparation is astounding. One would suppose that, if the candidate were ever to write a letter with extreme care, the chief occasion for the exercise of such care would be in writing a letter of application. Frequently, letters of this kind are dashed off in the most slipshod fashion, both as to form and content. An illegible letter, poorly punctuated, and with an occasional misspelled word, repels attention. What is said is of greater importance than the way in which it is said. It is not likely that the candidate will give expression to the best of which he is capable, unless he takes the trouble to clarify his ideas by careful and painstaking deliberation. A week is not too much time for a schoolman to devote to the right kind of letter of application.

## Personal Interviews

A personal interview, when it is possible to arrange one, is the best initial way to attract attention. Salesmanship has several valuable suggestions in this connection. All successful sales managers emphasize the importance of having at one's command "talking points" carefully worked out in advance. It is not wise to depend upon the inspiration of the moment — none may be forthcoming. Here, as elsewhere, the best preparation for inspiration is preliminary perspiration. The same sort of careful and painstaking preparation should precede the interview that precedes the letter of application. Such preparation makes the candidate ready and resourceful in adapting himself to whatever turns the conversation may take. It enables him more easily to direct conversation into such channels as he would like it to follow. It tends to free him from the natural uneasiness of a candidate who is under observation. Fresh preparation tends to make him earnest and enthusiastic in manner, clear and definite in thought.

## Personal Appearance

Every schoolman has experienced the importance of first impressions. It is, therefore, worth while to take particular pains to be well and appropriately dressed. One's manner should be genial and friendly, without affectation. If possible, the applicant should be familiar with local happenings. He may be expected as an intelligent, educated man to be familiar with various topics of the day as discussed in the daily papers and current periodicals. Such information is likely to furnish a ground of common interest, with the strong probability that a favorable impression will arise from the resulting discussion.

## The Holding of Interest

The second law of salesmanship is to "hold interest." There is no sharp dividing line between the initial attraction of attention and the holding of interest. Much of what has been said in discussing the former applies to the latter. Correspondence may be used by way of "follow up" from professional friends, or from the candidate. If a second interview is possible, it is a good plan for the candidate to learn as much as

he can about what may be termed the human side — the interests — of the prospective employer. A good way for a candidate to hold interest is to show interest in what is interesting to the employer, but this interest should be a genuine one, based on real appreciation, and not merely assumed at the time. It seems unnecessary to say that the schoolman can not discuss a competitor with a prospective employer. If asked a question outright about a fellow schoolman, who is a candidate for the same position, nothing derogatory should be said of him. No one can successfully build up himself by tearing others down. A generous word about a competitor reacts to the advantage of the person who gives it.

## Arousing Desire

The third law of salesmanship is to "arouse desire." A schoolman is desirable to an employer, because of the service he gives promise of rendering to boys and girls. Hence, any information emphasizing the quality of such service arouses desire for this service. One of the best proofs of what an administrator will do in a new situation is what he has accomplished in previous positions. Statements relating to a schoolman's accomplishments are more effective when made by unbiased members of boards, or by others in a position to know the facts. However, the wise applicant will submit a formal statement of his previous work.

## Confidence a Basic Law in Human Relations

Confidence is a basic law in all successful human relations and quite reasonably the fourth law of salesmanship. Self-confidence in the applicant tends to inspire confidence in the employer. Self-confidence soon ceases to do this, unless it is evident that the applicant has a thorough grasp of his business. The schoolman worthy of an administrative job has such a mastery of fundamental educational principles that he is prepared to give clearly, and in untechnical language, the reasons for the faith that is in him. Suppose, for instance, that he is asked about his opinion on the single-salary plan or the six-six plan of school organization. His reply will not be calculated to create confidence, if it is limited to the assertion that he believes, or is opposed, to one or other of these plans. He must be able to say specifically, and convincingly, why he believes, or disbelieves, and to refer to basic educational principles to justify his opinion.

## Aids in Building Confidence

The candidate for any position of consequence will naturally submit any concrete evidence he may possess showing originality, initiative, or mastery of administrative problems. Printed reports, or studies, and articles published in educational periodicals are valuable aids in building up confidence. Carefully prepared typewritten accounts of useful experiments involving new ideas, plans, or devices are also helpful.

## Arriving at a Favorable Decision

Quite logically, the four sales steps just described culminate in the fifth, "favorable decision." The time for this is the so-called "psychological moment" when action, if taken, will be the appointment. Decision is so important a matter as that of selecting a school administrator is not likely to be arrived at, without careful deliberation. It is brought about ordinarily, not by one or two strong impressions, but rather by the repeated impact of many favorable impressions. All of these steps of attention, etc., just

(Continued on Page 130)



# Ventilation Viewpoints

## Stamford Standards and Methods of Approach

Joseph A. Ewart, Superintendent of Schools, Stamford, Conn.

During the several months just past, Stamford classroom ventilation and cleaning provisions have evoked such extensive outside inquiry that we have undertaken to do a little analysis of local practices and trace their gradual evolution as an integral part of our school-administration routines.

It is of interest to note the contrasts between the prevailing thought of the present moment and the ideas with respect to schoolroom atmosphere that dominated the situation some 10 years ago. The contrast between the physical layout of classrooms 10 years ago and now is even more pronounced. The transition has been gradual, however. No upheaval has ever been experienced because of feverish demand for quick reform. We have been influenced by practical demonstration and not by theoretical appeal.

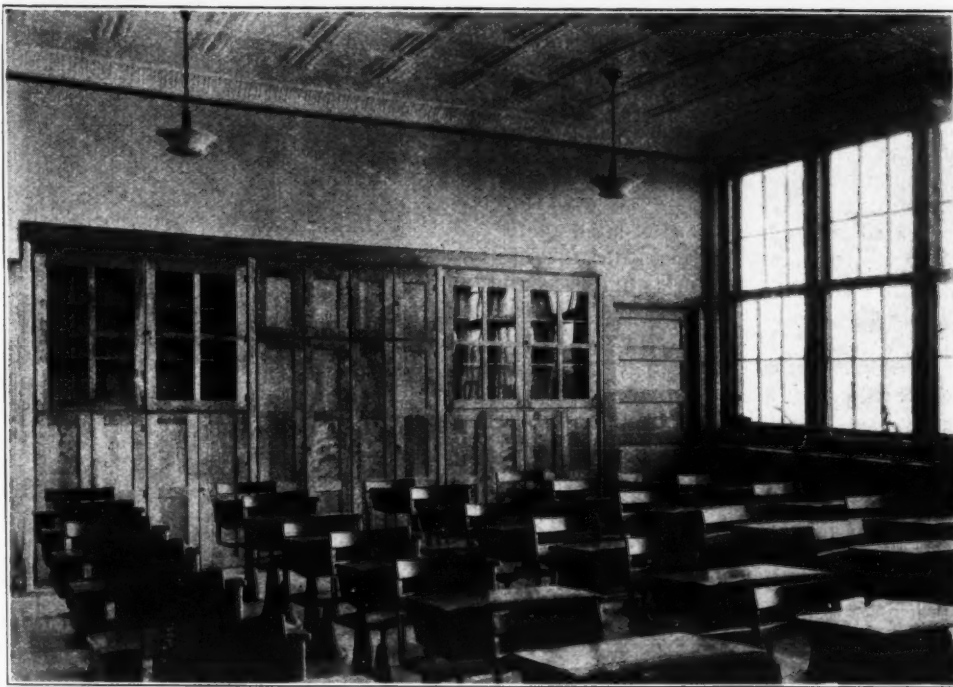
Formerly Stamford utilized various systems of ventilation, and somewhat casually determined whether a given project would employ central fan system, split system, or a more elaborately combined system for air conditioning. Such considerations as price advantage and committee preference determined each installation as a separate project.

More recently increasing attention has been paid to conflicting claims made for this and that theory of what constituted effective ventilation, and an effort has been made to discover absolute values. At the same time budgetary effects have been studied in connection with the results obtained by the use of the various systems.

### A Bit of History

Since 1924 Stamford has employed unit ventilation to the exclusion of all other systems. We have come to believe in unit ventilation and our consistent effort has been to choose suitable apparatus and install it in a manner requisite for economical and efficient operation. Stamford schools now have unit ventilation in 8 buildings that employ 255 units of various types.

During the past 4 years in Stamford, 2 new school buildings have been erected and 4 outgrown buildings modernized with supplementary rooms added to increase their capacity by



INTERIOR VIEW OF STANDARD UPPER-GRADE CLASSROOM WITH UNBROKEN FLOOR SPACE, AMPLE STORAGE, CORRIDOR VENTING, AND OTHER FEATURES OF EFFICIENT PLANNING

about 75 per cent. The capital outlay in school building enterprises during this 4-year period aggregates the very considerable sum of a little over three million dollars. This amount must be constantly increased by annual building operations to house an average school population increase of between 500 and 600 pupils per year.

Such successive building enterprises in any school community are in a sense forced projects. Because population growth is usually gradual, those not in direct contact with the schools fail to appreciate its extent. The public and the appropriating body usually do not realize the situation until it has become so acute that existing accommodations no longer suffice, and ultimately part time with all its damage to children by reason of its reduction of school opportunity appears to be the only resort.

Such was the case in Stamford until about 4 years ago. School population had very greatly

increased without any expansion of school facilities. Finally the entire high-school and about 3,000 elementary-school children were attending school on part time. When the public came to realize the seriousness of the situation and to be willing to appropriate money to solve the problem, the need had become so widespread that a large expenditure was inescapable.

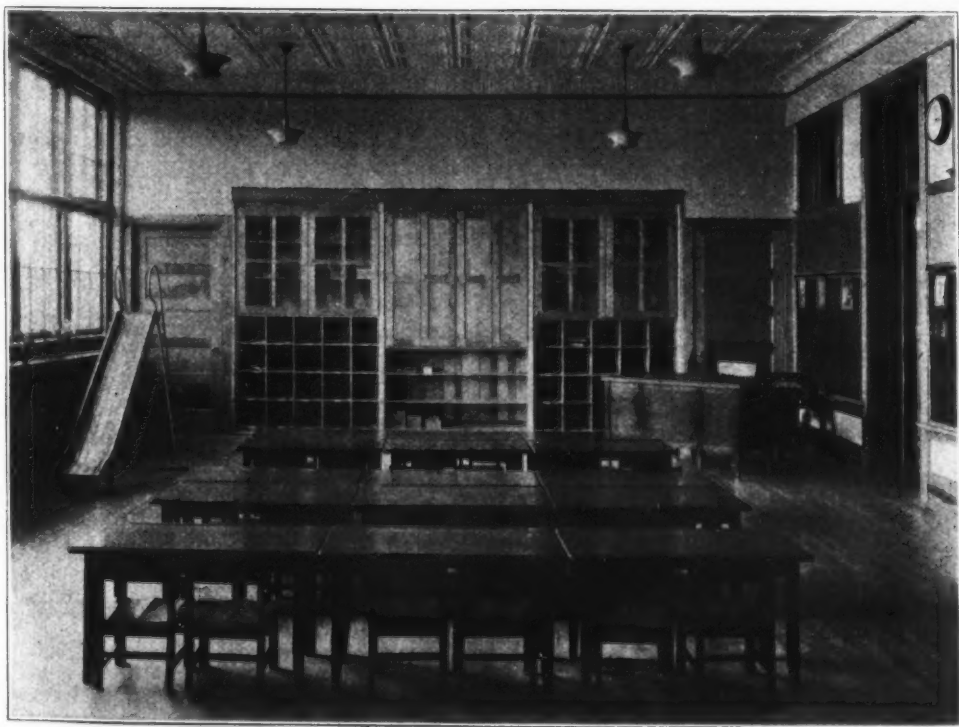
Such situations, wherever they arise, require straight thinking in order to meet the need with due regard to considerations of economy and without compromise of health or educational objectives. They force all possible simplification of plan, sharpened perspective, and a consistent effort to establish standards of efficiency.

The last decade has brought not only enormously increased building costs and a more rapidly growing school population, but also a greater insistence upon a supply of fresh air, evenly heated, properly controlled and distributed, and frequently changed. Only by careful study can those engaged in school planning bring about harmony between these two conflicting demands; on the one hand, considerations of health, involving inevitably larger costs, and on the other hand, considerations of necessary economy in construction.

### Ventilation Problem Vital

Thus the question of methods of providing constant and adequate supply of fresh air, without undue expansion of building costs, has become a very vital one in school construction. With our large building needs in Stamford, necessarily involving large expenditures, the method of providing optimum air conditions at minimum cost demanded our most careful consideration.

Schoolroom ventilation cannot be discussed apart from the construction and administration problem as a whole. Space saving and construction economy are both involved in ductless systems. The omission of the central fan room and the ducts in interior walls represents a space saving that has been estimated as the equivalent of two classrooms in a 12-room building. With the central fan system no longer considered worthy of use, there have been brought forward two alternatives: first, open-window ventilation; and second, classroom units supplying both heat and fresh air.



A CORNER OF LOWER-GRADE CLASSROOM SHOWING AIR-VENT THROUGH PANEL OF DOOR, AND SPACE-SAVING USE OF STORAGE CABINET AS PARTITION WALL BETWEEN CLASSROOM AND WARDROBE SPACE  
Movable tables and chairs make possible wide variety of forms of group placement.



### Open Window Claims

Open-window ventilation is urged on the ground that it approximates the conditions of out-of-door air and also that it represents a large saving in construction costs. With regard to the first claim, my study and investigation of such installations show no justification for the assertion that optimum air conditions are any more generally secured with windows opened and closed at the discretion of the individual teacher than with central systems under the control of the school engineer. The wide variation in temperature conditions of several window-ventilated rooms similarly situated, demonstrates the inadequacy of this system. Wind direction and velocity, outside temperature, presence or absence of sunshine, the age, the manner of dress, and the health condition of the teacher, all have bearing on room temperature. Inasmuch as the good teacher, engrossed in her work, is often unmindful of atmospheric conditions except as they perceptibly affect her own comfort, the air condition in the room becomes, not sometimes, but usually, unfavorable to the interests of the children and the teacher. The wide variation in the extent to which windows are opened, as easily seen from the exterior of the building, is generally found duplicated in the classroom conditions, both as to temperature and quality of air within the room.

On the cost side, it is difficult to accept the claim of economy of open-window ventilation in view of the far larger amount of radiation that must be supplied beneath the window. At the same time a higher temperature must be maintained in the steam coils in order to heat properly the air as introduced through the windows. Larger fuel consumption and the consequent greater firing-labor are inevitable factors in a system of open-window ventilation. No wise administrator looks only to first costs; he gives most careful consideration to operation costs, often somewhat less apparent but none the less real and vital. In short, no open-window installation has yet justified itself to me as either efficient or economical.

### Unit System Adopted

The second alternative to the central fan system is the ventilation unit in the classroom, supplying both heat and fresh air. This is the system adopted as standard for Stamford schools after careful study and investigation, considering both economy and efficiency.

The coal bill for Stamford schools 10 years ago was \$28,000. The appropriation for this purpose the present year is exactly the same amount. Under present installation and operation methods it costs no more to handle a school building cubage more than double that of ten years ago, including a high-school building of over 200 rooms of all sizes, with a cubage of 3,500,000 feet, and an elementary-school increase equivalent to about 100 classrooms.

The first step in the direction of greater efficiency was taken when blowers were installed on our boilers, enabling us to use buckwheat coal at far less cost per ton, and also to reduce materially the heating-up period in the morning. Another factor is the putting of our heating plants on the vacuum system, thus obtaining more immediate results from our steam, distributing it more evenly through the whole building and under less pressure at the boiler. However, these two factors alone would not assure us adequate heat or fresh air in the classrooms; this remained to be accomplished by the use of ventilation units in the several classrooms. The unit is flexible; it eliminates dust and ducts and delivers the air direct; it is capable of adjustments that compel the consistent use of ventilation facilities definitely designed to produce essential hygienic conditions. The provision of a thermostat in each classroom controlling the unit in that room entirely eliminates the human ele-



THE SPRINGDALE SCHOOL, STAMFORD, CONNECTICUT, MAKES FULL USE OF UNIT VENTILATION PRINCIPLES  
Emmens and Abbott, Architects, Stamford, Connecticut

ment in control, thus making the air condition in the room independent of the attention and the feelings of the teacher. It is, indeed, unfortunate that so many teachers mistake dead air for warm air, and fresh air for cold air. The personal equation makes it necessary, therefore, to have in each room a thoroughly reliable thermometer if there is no thermostat.

### Making Unit Ventilation Effective

Investigation and experience have convinced me that the location of the ventilating unit at the center of the outside wall is essential to proper air distribution to all parts of the room. It is also necessary to select units that have a capacity of not less than 6 nor more than 9 air changes per hour. Air under pressure will leak out of the room, but the supply of air should all pass through the unit, being warmed in its passage, and not enter the room through leakage at other points, thus at least partially defeating the control provision of the unit.

We do not use recirculating units. Even if, by the use of such units, the rooms are more quickly and economically heated in the morning (a claim which we believe to be theoretical rather than actual), it seems to us that there is every justification for having none but the freshest air at the outset; it is as essential then as at any other time of the day. Again, we all know about the boy who, under the influence of a religious bringing-up defined a lie as "an abomination in the sight of the Lord and an everpresent help in time of trouble." So recirculation is an everpresent temptation to the lazy janitor who is more interested in the amount of coal he has to shovel than in the amount of fresh air the teachers and children breathe.

The principal can do no greater service to his school than by acquainting his teachers and janitors with the fundamental principles of good ventilation and through them passing on to his pupils an appreciation of fresh clean air.

Facts of cost are important, but we have been careful not to consider air hygiene as an economic issue only. We believe in fresh air. We believe that adequate fresh-air supply is a demonstrable quantity and that efficiency rating must be on the basis of both qualitative and quantitative results. We expect unit ventilation

efficiency only when reliable apparatus has been successfully installed, where valves, pressures, returns, controls, and operation routines are adequate and properly related.

### The Whole Purposes of Ventilation

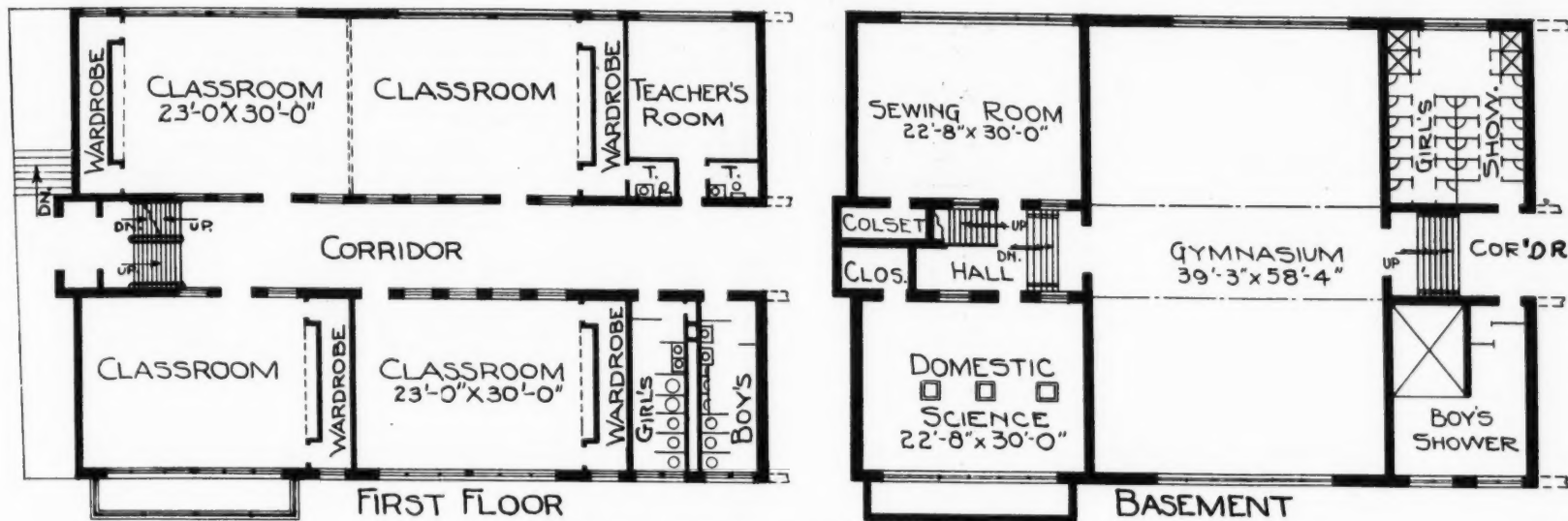
It is on the basis of actual data that accepted routines come up for revision and that apparatus change is made to meet our higher standard. We do not think of ventilation as an abstraction, but as involving temperature range, quantity requirement, diffusion, movement, and control. It was not an economy plan alone that committed Stamford to unit ventilation. Cleanliness, freshness, absence of odors, ample current without draft, dust elimination, diffusion, good health response, vitality, and energy in teacher-student groups support our practice. These are demonstrable factors, independent of individual personal opinion. The unit system alone operates with margins that allow for changing conditions, both within and without the schoolroom.

Our inquiry as to ventilation results really began in 1926 when we were faced with the decision as to the best type of ventilation to install in our new high-school building. Window ventilation as described in the pamphlet *Ventilation of School Buildings*,<sup>1</sup> was first considered. Advocates of this type of ventilation presented its claims, and visits were made to several schools so equipped with open-window installations and to other schools equipped with ventilation units. Careful investigation convinced us that we wanted a more positive control than could possibly be obtained from an open-window system. Such control we decided could be obtained only by the use of ventilation units in the several classrooms.

The search for right ventilation method is only begun with the decision to adopt the unit system. In our Stamford inquiry we have studied the relationship of the form of construction of heating units the fluctuating room conditions. We became convinced of the superiority of one piece, wedge core, low temperature, fin heaters over coils and welded joints, both in the matter of efficiency and of protection

<sup>1</sup>1925 Report of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association.





SPRINGDALE SCHOOL, STAMFORD, CONNECTICUT  
Enmens and Abbott, Architects, Stamford, Connecticut

against damage through possible freezing; we have weighed manual against mechanical manipulation and have demonstrated the great superiority of automatic control by means of thermostats.

The excellent results that have been attained in our large high school are due in no small measure to the fact that the unit-manufacturer's interest was not limited to the sale of the units. He placed at our disposal the services of an engineer of long and outstanding experience in the fields of both heating and ventilation, especially as applied to school buildings. His advice and suggestions were of incalculable value in producing a system of conspicuous efficiency.

#### A Stamford Ventilation Installation

The 12-room addition to our Springdale school, occupied this year, embodies nearly all the results of our ventilation study. The original building, erected in 1909, was improved and extended in 1917, and again in 1924 an 8-room brick addition was built. The new north wing, built in 1929, represents an addition of 8 classrooms, accommodating 280 pupils. Our first concern here was to achieve the complete modernization of the existing heating plant.

We require that unit ventilation shall prove its ratings. It becomes fundamental, therefore, to assure ample steam pressure, free steam passage, adequate returns, and other factors that enter into successful operation. Two existing boilers in the Springdale school were augmented by installing another boiler of similar capacity, so that we now have 3 boilers of 13 sections each. New steam and return pipes with electric vacuum pumps converted the plant into a modern and highly responsive vacuum system.

Our idea of "vital" air requires that no part of the ventilation circuit shall be exposed to excessive heat. Heating elements within the units specified were guaranteed not to exceed 150 degrees with 1-lb. steam pressure. The units installed are capable of thorough diffusion without drafts through nozzle-type outlets with air introduced at a velocity of 1,000 ft. per minute. Low speed motors, definitely calculated for this work, are used.

Supplementary direct radiation within the rooms was calculated on the basis of heating the rooms to 70 degrees F. when outside air is zero. There are no excessive temperatures anywhere within the system and the direct radiation is used only when weather extremes call for temperature boosting. At all times during the session, however, the ventilation units are in service furnishing a constant supply of fresh air to the rooms. The desire of the janitor to shut off the units and thus save fuel and avoid labor for himself, must never be permitted.

#### Corridor Venting Used

Heating and ventilating arrangements as worked out for the Springdale school are in

effect a split system with the room as the unit, each classroom with its own direct and independent source of fresh-air supply. There is a complete absence of ducts.

The building utilizes corridor venting throughout. Gratings are placed in the lower panels of the doors of classroom wardrobes, and through gratings in wardrobe walls the air passes into the corridors, from which it goes out through roof vents.

As the air direction is out of the classroom through the wardrobe, it makes impossible the introduction of wardrobe air into the classroom. As will be observed from a study of the floor plans, a large window in the end wall of each

wardrobe introduces a flood of sunlight, a most valuable factor in the establishment of the best air condition in these rooms.

While we consider thermostatic control of temperature essential, as installed in our high school, it was omitted from the last addition to the Springdale school, none having been supplied in the original structure.

One of the most common defects in school planning is inadequate provision for heating of corridors. This is especially serious when the corridor is an interior one with classrooms on either side. Corridor ventilation effectively solves this problem, the temperature of the cor-

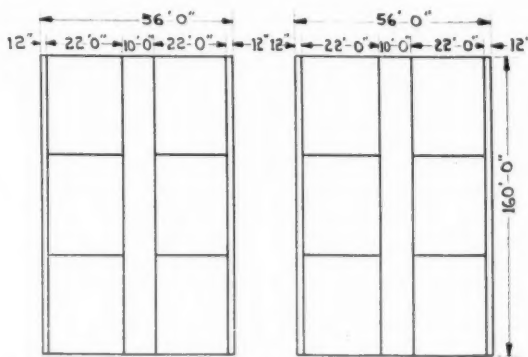
(Concluded on Page 138)

## School-Business Administration—Architectural Designs, Plans, and Specifications

Geo. F. Womrath, Minneapolis

### 10. What Shall Be the Width of Classrooms?

In order to appreciate in dollars and cents what a slight change in schoolroom dimensions represents, assume that the plans call for a 2-story, 24-room, H-type building, with classrooms 22 ft. wide and arranged on each side of a lateral 10 ft. corridor in each wing. Assume, too, that the length of the building is equivalent to 3 classroom units, the stairs, toilets, offices, etc., to be included.



PLAN OF CLASSROOM WINGS OF SCHOOLHOUSE, SHOWING POSSIBLE ECONOMY DUE TO NARROWER CLASSROOMS

The approximate dimensions of such a building would be 160 ft. long and 30 ft. high. The walls would be about 12 in. thick.

Assume that the cost is 30 cents per cubic foot, for general construction.

If the classrooms are reduced 1 ft. in width, the saving would be \$5,760, based upon a reduction in cubical content figured as follows:

4 ft. saved in total width of building (2 ft. per wing)  
30 ft. approximate height of building (no basement other than for boiler and fuel room)  
160 ft. approximate length of building  
30c per cubic foot assumed cost of construction  
 $4 \times 30 \times 160 \times 30c$  equals \$5,760, or a unit saving of \$9 per lineal foot of building for each

foot saved in width of classroom figured as follows:

A strip 1 ft. wide, by 1 ft. thick by 30 ft. high, times 30c, equals \$9.

The foregoing figures are for illustrative purposes only. They are not accurate, and considerable liberty is assumed in setting up this computation, as the saving in cost is not in direct ratio to the reduction in cubical content or the saving in space. The smaller the building the greater the cost per cubic foot to construct, and the saving in cubage alone does not affect the equipment and the preparation cost and, therefore, should not be figured at full value. However, for illustrative purposes, the computations serve the end for which they are presented.

### 11. What Ceiling Heights Shall Be Used?

The following opinions on the height of ceiling and widths of classrooms have been expressed<sup>1</sup> and are quoted by courtesy of Mr. S. A. Challman, commissioner of school buildings for the State of Minnesota, to whom the opinions were given:

Mr. Frank H. Wood, former director of school buildings and grounds for the State of New York writes:

We require a 12-ft. ceiling in all cases where there are to be 5 rows of desks. We also require a width of approximately 22 ft. In our opinion, a width of 21 ft. is too narrow for 5 rows of desks, and particularly so with upper-grade size junior and senior high schools. We want at least 3 ft. on the window aisle and 3 ft. on the blackboard aisle. A closer proximity of desk to radiators on the window wall is objectionable. Radiators also take up a portion of this aisle, and there are other reasons why the aisle should be wider than the interior aisles. The inner aisle on the blackboard side in our judgment should be wider by reason of the additional uses to which that aisle is to be put. Another reason for not narrowing down any of the aisles is the desirability of having sufficient space so that pupils can go through simple physical exercises with-

<sup>1</sup>Questionnaire, February, 1926.

(Continued on Page 143)



# The Home Teacher

Irvin T. Simley, Superintendent City Schools, South St. Paul, Minn.

Boards of education and superintendents are interested in their graduates. They are proud of their achievements. They want them to do well. Their success is an index of the worth and standing of the school system of which they are the responsible directorate. They like to think of their graduates as *their* boys and girls. They have a part in them and, as such, they are possessed of a very real sense of responsibility for their welfare and success. Their success is their own success. When, therefore, as frequently happens, boards of education find it necessary to legislate in stringent measures as to the conditions under which home teachers may be employed, frequently barring them altogether, any feeling that boards have adopted such a policy because of a lack of interest in or a lack of appreciation of their own home folks should, on the very face of it, be summarily divorced and dismissed. The sentimental side of the question must give way to its practical implications and working out.

It is probably quite safe to say that the general public is *teacher-minded* rather than pupil-minded. That, at least, would be quite the natural situation. Because of the relatively conspicuous place the teacher occupies in any schoolroom situation, it is only natural that the general public should think of her as the one who is garnering the harvest. The one who has thought the problem through, on the other hand, realizes that it is the children, of course, who should be receiving the favors. The teacher is, or ought to be, the donor; the children are, or ought to be, the beneficiaries. It takes a certain amount of professional experience, or of professional training, to get the professional point of view. The professional point of view considers any educational policy in terms of its ultimate benefit to boys and girls. In other words, the educational welfare of boys and girls come first. The schools are of and for them. Any benefit accruing to superintendent, principal, or teachers is incidental and strictly secondary.

## The Children Must Be Served

Not having had either the professional experience, or the professional training, the general public naturally sees in the appointment to a teaching office, a position of honor and trust, and the remuneration and recognition of the *teacher*. Though by no means unmindful of these aspects of the transaction, boards of education and superintendents, who have had professional experience and training, have uppermost in their minds in any appointment, the question of the benefit to be derived by the children to be served. The appointee fades into the background of the picture. Appointment or election to a teaching position, with them, is not a question of favoring some teacher. It is a question of providing for their boys and girls the best teacher that money can buy.

Granted, then, that these things are so, why can't, or why don't, boards of education engage their teachers, on a basis of merit, and leave entirely out of consideration the question of residence? Isn't it fair to assume that in any good school system and community there may be local graduates who, on the whole, are as good and as strong candidates as the graduates of any other equally good system? To be sure there are, and in such cases boards and superintendents must be sure of what they are doing, and know why they are doing it. Let us see.

## The Home-Teacher Problem

Assuming that a board of education has found it necessary, or expedient, to legislate against the employment of a home teacher, has

any injustice thereby been done the teacher? If the teacher in question is weak, or so mediocre, as to make it difficult for her to get a position elsewhere, it would of course be "nice" for her to have the home folks "take her on." If, on the other hand, she is strong, chances are that she will have little difficulty in commanding a position commensurate with her ability. Strong teachers are always in demand. Usually it works out that the weaker the teacher, the more difficult it is for her to get a desirable position of any kind and, consequently, the greater the pressure applied to get the coveted home position. The stronger the teacher, the easier it is to get a position and, consequently, the gentler and quieter the pressure applied to get the home position.

In other words, the candidate seeking a position on merit alone runs very small chance of being "left out in the cold." The value of the position "at home" is frequently inversely proportional to the worth of the teacher. Of course, there are exceptional cases. There is illness in the family and the teacher can stay at home to help, and she can teach at the same time. Is that justice to the teacher? If teaching is a full-size job—and every teacher knows it is—is it doing justice to the children to put them under a teacher who is overworked by carrying a double burden? Or the mother has died, and the daughter-teacher is needed to help maintain the home. The same answer applies. Or the father has died, and the mother needs company. It may at times seem cruel, but the worthy girl has her own life to live.

And there are other aspects of this problem. The old adage "A prophet is never appreciated at home" still persists. It lives because it is so full of truth. That self-assertion, confidence, and initiative lend themselves more readily to full and free fruition among strangers, or relative strangers, cannot be gainsaid. Unfair though it may be, the fact remains that it is human nature to magnify faults and weaknesses, particularly in the case of the acquaintance. Unless faults and weaknesses, on the other hand, are so flagrant as to be worn on the sleeve, to borrow from the vernacular, the tendency is to accept the stranger as fault-free. When the stranger is a teacher, only the strong points are known, and only these strong points are attributed to her. At home the teacher may, or may not, "be somebody." Away from home the teacher will be sure to "be somebody" at least until, or unless, she proves herself otherwise. She doesn't have to *earn* her right to recognition and acceptance. Her being a teacher does that for her.

## Another Difficulty at Home

A third argument from the teacher-point-of-view in favor of her working away from home may be found in the implication of a bit of observational philosophy, "Every home has a family skeleton tucked away in some closet." A teacher working among her own folks will be held responsible not only for anything and everything tending to invite personal criticism, but she will frequently be called upon vicariously to answer for the sins of her family and relatives, and even friends and associates.

The above arguments, however, except insofar as they have pointed to the fact that it is generally more difficult for a teacher to "make good" at home than away from home, thus taking a certain amount of strength and tact and ability away from her school work, and dissipating them in solving irrelevant problems, have not covered the case from the point-of-view of board responsibility.

Aside from the considerations discussed above, if a school board is functioning under a policy barring home teachers, the members have probably been actuated in their adoption of such a policy by the two main problems that attend the administration of a practice admitting home teachers: first, the difficulty of giving a position to Miss A and not to Miss B and, secondly, the difficulty of terminating a contract in the event the home teacher does not succeed in her position.

## Let the Superintendent Judge Applicants

Since the one purpose of the school is to instruct, it follows that any board of education has no larger responsibility than that of determining the policy under which instruction is purchased. The principal factor of instruction is the teacher. Common practice in well-governed school systems is to rely largely upon the judgment and recommendation of the superintendent in making appointment to teaching positions. He is, or ought to be, expert in this particular. There is no question but that he will be freer in making his recommendations, if local teachers may be left out of consideration. Some of them may have more influence in the community than others, and most of whom will have more influence than candidates without connections in the community. Suppose for the sake of argument, that home teachers may be employed, and that a local candidate is adjudged the best candidate for some vacancy and is given the position. At the same time, the application of another local candidate is rejected, because, in the judgment of the superintendent and board, she is an inferior candidate. Should anyone, on account of difference of opinion, or on account of jealousy, see fit to challenge the decision of the school authorities, any amount of trouble might thrust itself upon them. Teachers, according to common practice, are elected on a basis of *confidential* information. Justifying *election* on a basis of information available may not be a breach of confidence, since such information is necessarily favorable, but justifying rejection on a basis of information gathered in confidence would certainly constitute such a breach. Some policy must be maintained which will enable people who are in position to give information about teachers to tell "the truth, the whole truth, and nothing but the truth," whether that truth be favorable, neutral, or unfavorable to a candidate.

## The Dismissal of Undesirable Teachers

In considering the problem of dismissing incapable, or otherwise undesirable teachers, it may be ventured that more harm and injustice have probably been done to children by allowing mediocre and inferior teachers to remain in the schools than has been done by dismissing capable and worthy teachers. Just as the greatest pleasure that can befall a superintendent and board of education is to retain and recognize an outstanding teacher, just so is it their most difficult problem and their most unpleasant task, to forcibly terminate a contract with a teacher, unless the grounds are so patently and so publicly justifiable as to preclude even the slightest possibility of any question. It is difficult to dismiss any teacher; it is practically impossible to dismiss a local teacher. Even the humblest job under a school board cannot be forcefully vacated, without unleashing some lurking little storm sputtering for freedom. This storm will inevitably do more or less damage—sometimes "less," to be sure, but frequently "more," unless, indeed, first, the board be will-

(Concluded on Page 135)



# A Practical Outline Governing the Principles of Supervision

H. C. Wegner, Waupun, Wis.

## I. Purpose of Supervision

A. *To insure economy.* (1) To coordinate the work of teachers with respect to attainable goals. (2) To eliminate inefficient efforts and misplaced energy: (a) by systematic checking of deficiencies and attainments; (b) by providing opportunities for pupils to progress at maximum rates; (c) by suggesting procedures conducive to good habits of study and work.

B. *To encourage teacher growth.* (1) By furnishing professional advice and council. (2) By organizing teachers for professional study. (3) To stimulate by (a) furnishing opportunities for experimentation and research; (b) giving adequate recognition for merited service rendered; (c) teacher self-analysis, self-criticism, and self-improvement.

Supervision should in some way insure that the daily work in the classroom be kept abreast of the best thought and practice, but it is far more important that it should create a condition that will be conducive to the professional growth of every teacher, and that it should encourage and stimulate the creative teacher by giving him freedom to experiment and the benefit of constructive criticism and adequate recognition; in other words, to make good teachers better.

C. *To guide in evolving and interpreting the curriculum* in terms of present and probable future needs by: (1) keeping abreast of the best educational thought and practice; (2) eliminating subject matter which has no value; (3) setting up aims in terms of actual needs.

D. *To assemble and disseminate the practices of the best teachers* whose work is not merely good, but has real distinction.

E. In general, to furnish educational leadership in the cooperative groups of coworkers to the end that the pupils may make the largest possible growth in desirable ideals, interests, knowledge, power, and skills with the least waste of energy and the greatest amount of satisfaction to all concerned.

## II. Criticism of Supervision

A. *Supervision is superficial.* Too many supervisors observe teaching superficially. Before attempting to offer advice or criticism, it is necessary to have more than a general notion of what is wrong. To many supervisors, if pupils are orderly and parents do not complain, the teaching is acceptable.

B. *Supervision is of no specific help.* Supervision is too general. No specific constructive help is given teachers, criticism is subjective, and consists of mere personal opinion, rather than of the objective type. Often it is not based on educational principles.

C. *Supervision is unsympathetic.* There is lack of sympathy on the part of the supervisor. He fails to see and understand the difficulties under which a teacher is working. It lacks human sympathy. Extenuating factors and circumstances are not taken into consideration.

D. *Supervision is undemocratic.* Supervision is autocratic — is superimposed from above. Too much of the element of fear enters into the situation. "He comes announced or unannounced, casually or intensely, secretive with pad and pencil. He comes for a few minutes, once a year, to pause or park with the 'weak' and the 'best' and on the basis of such visits, the year's work of a teacher is rated either alone by the visitor, or in conjunction with other officers no better qualified. As a result, fear is frequently a dominating factor."

E. *Supervision is inspectorial.* There is too much of the inspectorial fault-finding, detective

Superintendent Wegner has prepared this practical outline of the principles of supervision, to furnish in general, educational leadership in the cooperative groups to coworkers, in order that the pupils may make the largest possible growth in desirable ideals, interests, knowledge, power, and skill, with the least waste of energy and the greatest satisfaction to all concerned. The outline is a guide in encouraging teacher growth, in evolving and interpreting the curriculum, in insuring economy in the work of the schools, and in assembling and disseminating the practices of the best teachers. — Editor.

type of supervision. Teachers question the motive behind the visit.

F. *Teachers lack confidence* in the ability of the supervisor to supervise outside his special field. Even though the supervisor does not know the subject as well as the teacher who is teaching it, he should be able to tell whether or not the pupils are getting anything from the instruction by the attitude in the classroom, and by the general principles employed by the teacher in conducting the work in the classroom.

G. *The supervisor's visits are too infrequent* to give the supervisor a fair basis of judging the teacher's work. The length of the visit often, too, is inadequate for a fair judgment of the teacher's work.

H. *The supervisor has the rating attitude.* Supervisors assume an attitude of looking for something on which to rate the teacher, rather than one of helping them to become better teachers.

I. *The recitation is not evaluated in terms of the teacher's purpose.*

## III. The Teacher's Attitude Toward Supervision

Some teachers resent supervision because: (a) they do not understand nor are they made aware of the real purposes of supervision; (b) they dislike the work and discomfort of readjustment to plans and procedures and the disturbance of a self-satisfied state of status-quo; (c) they dislike supervision on general principles and proclaim the fact to all the world that will lend a listening ear; (d) they take a personal, rather than a professional, attitude toward supervision.

The faults of supervision are due in part to a misconception of the supervisor's job, rather than a desire on his part to be autocratic or dictatorial. The success of supervision is determined largely by the attitude of the teacher toward the same. "Understanding teachers interpret the administration."

## IV. Types of Supervisors<sup>1</sup>

*The office-chair type.* Gets ideas entirely from class reports, reports from teachers, parents or pupils. Gives undue emphasis to statistical reports, tests, scores, etc. Over-emphasizes clerical details.

*The inspectorial type.* His authoritative entrance into the room is distracting to teachers and pupils alike.

He makes the rounds every day, spending a few minutes in each room, giving the room the "once over" and walks out. Supervision to him is merely a perfunctory routine duty.

*The cynical type.* He manifests an utter absence of humor, has no geniality, no kindness, no charity, nor fellow-feeling, no amicability, nor generosity. He delights in making teachers squirm and writhe, is nagging, faultfinding, magnifying errors out of all proportion. He fails to discover and reward merit, and prides him-

self on being brutally frank. He has definite, set notions of teaching; and leaves no room for originality, personality, or experimentation on the part of the teacher.

*The optimistic type.* He is a good fellow. He bubbles over with optimism and is enthusiastic about everything. Throws a glamour of moonlight over the unlovely facts which he observes. He is blind to defects, calls poor work good, just to be nice. His whole attitude reflects insincerity, and his commendatory remarks are interpreted as "apple sauce."

*The constructive type.* He enters the room quietly, and inconspicuously. There is a feeling of confidence on the part of the teacher and pupils at his coming. He does not frown, interrupt, or take notes. There exists between him and the teachers a feeling of mutual respect for each other.

His criticisms are tactfully given, considerately, and with a spirit of helpfulness. He has a highly professional attitude. He is scientific in spirit and procedure, but human. He recognizes merit; offers assistance, but is not dogmatic. He sets up attainable goals and shows the way to reach them.

*The right type of supervisor has "Supervision":* (1) He commends the good, giving reasons recognized by the teacher as commendable, or she loses respect for his sincerity or judgment. (2) He condemns the poor based on educational aims and principles, rather than personal opinion or authority. (3) He gives constructive suggestions for improvement.

## V. General Technique in Visiting the Classroom

A. *Entering the room.* A supervisor should enter the room as inconspicuously as possible, without disturbing the work of the class, or distracting the attention of the pupils. He should see teaching as far as possible under normal conditions. His presence should set the teacher at ease. Position in the room should be as inconspicuous as possible, preferably behind the class in the rear of room. Enter and leave through the rear door of the classroom if available. The expression on the face of pupils should be observable. A friendly nod to the teacher if she observes his entry is the only form of greeting necessary.

B. *Attitude.* He should be friendly, open-minded, and impersonal in search of the best, with an attitude of suspended judgment; an interested observer, entering into the spirit of the work. He does not sit with a "mask on," bored and expressionless, nor leave the room with evidence of disapproval.

C. *Length of visit.* A supervisor should plan to remain throughout a complete lesson unit, a period of 20 to 25 minutes is the smallest legitimate period for observation. Better still, several consecutive lessons or series of lessons in a subject on successive days, should be observed. Frequent short visits, when absolutely necessary, are a fair basis of judgment though not the best. Routine and disciplinary measures can be judged in a relatively short period of time.

D. *Frequency of visitation.* Frequency should be determined by the problems being studied, and the teacher's needs. Frequent visits, even if relatively short, is a fairer basis than infrequent, long visits.

E. *Courtesy:* (1) Ordinary rules of courtesy should at all times be observed; (2) don't take the only chair in the room. Etiquette demands otherwise; (3) don't look over shoulders of pupils or take their work for examination without

<sup>1</sup>Anderson-Barr-Busch, — *Visiting the Teacher at Work*, p. 367.



permission of the teacher. So doing, spoils the teacher-recitation relation; (4) permission to break into a recitation should be asked of teacher as well as permission to examine the work of the pupils; (5) the pupils should always feel that the supervisor has confidence in the teacher.

#### VI. Specific Technique in Classroom Visitation

**A. Taking notes.** A teacher must be made to feel at ease as much as possible. Every time a note is recorded the teacher wonders what mistake she made; she gets "fussed" and does not do her best work. Taking notes, therefore, is likely to embarrass the teacher and make her work less effective. A check list may be used as a device for recording specific observation inconspicuously. Upon leaving the room fill in specific examples to make the record complete enough to guide the supervisor in the conference to follow. Do not display notebook or take notes in the room.

**B. Attitude toward errors.** Teachers are sometimes made to feel that they are failing when they exhibit only a relatively small weakness. The evil of mistakes should not in general be dwelt upon. Differentiate between errors of routine and the more important ones of teaching procedure or professional attitude. *Correct a relatively few errors at a time.* Attention called to too many errors at one time, discourages the teacher. Dispose of errors by giving pedagogical and psychological arguments and by supplying where possible corrective procedures. It isn't sufficient to offer assistance—he must give assistance. A recitation should not be torn to pieces without adequate substitute procedures. Teachers should not merely be told what to do, but how to do it, but not to the extent that they depend on instruction from the supervisor. The best type of supervisor is he who "helps teachers to help themselves."

**C. Remedial measures.** Suggest remedial measures and insist that they be given a fair trial. Teachers who cannot, or will not, adapt themselves to recognized and clearly demonstrable pedagogical procedures, should not be tolerated in a system.

When an honest difference of opinion exists, experiment.

#### VII. Conference

"Our severest critics are often our greatest creditors."

**A. Purpose.** The supervisor must have something worth while to discuss or contribute to justify the conference. The primary purpose should be to assist the teacher in improving instructional skill.

**B. Preparation.** The conference period should be preceded by a period of careful preparation. The conference is no place for snap judgment. It must not be an inquisition. The kindest and most professional spirit must prevail. It must be purely impersonal and regarded as a means to increase instructional skill. Criticism should be made only after careful observation and analysis and diagnosis of the teacher's work made in terms of standards known in advance by one whose teaching is being judged.

**C. Approach.** Express appreciation of the strong points of the recitation, with the hope that they will continue to be approved, provided that what is said has a factual foundation.

Recognition of work well done makes adverse criticism easier when it is necessary. It is one thing to see ways of improving teaching and quite another to tell the teacher tactfully about them. Establish a reputation for fair and courteous treatment of teachers at all times.

**D. Time.** Each visitation need not necessarily be followed by a conference, if teachers understand that failure to do so does not necessarily reflect dissatisfaction with their work. However, whenever possible, it should take

place immediately, but after the supervisor and teacher have had a chance to think over details. Especially things which have gone wrong should not be taken up immediately. At times a supervisor will notice that things are not just right, but can think of no correct solution. However, if the difficulty is tactfully presented to the teacher, she may be able to solve the difficulty herself.

The conference should not be hurried, but should come at a time when both parties are free and not tired.

**E. Place.** The conference should not take place in the presence of pupils. Pupils frequently get the idea that something is wrong, that the teacher is being taken to task which may not be the case at all. They are apt to misinterpret and misconstrue the nature of the conference. A better place is the office or conference room, at which time and place conventionalities should be observed, to avoid any chance of misconstruing what goes on in conference. Doors should always be wide open. Courtesy must be maintained at all times.

**F. Nature of.** It should be in the nature of a give and take discussion and *not* monopolized by either party. Lecturing a teacher is poor form. It is unpedagogic and undemocratic. Teachers should be led to see the supervisor's point of view by the questions raised and the supervisor's participation in the answers to the discussion. The conference should be more than mere intellectual exercise.

A professional attitude should be maintained throughout. If disagreements arise between teachers and supervisors, developing into a debate, the supervisor should leave the matter until he has sufficient data to reveal conditions or prove his point. Discussion is entirely legitimate if impersonal, professional yet sympathetic, graciously but unflatteringly given, the right word at the right time fitly spoken.

Both supervisor and supervised should rise above the personal to the professional level. Avoid the use of *I* and *you*.

#### VIII. Criticism

Criticism must be as specific as possible, thus leaving the teacher better equipped to analyze her own teaching. It must be constructive. The supervisor must not tear down unless there are available better materials with which to build. The supervisor should inspire rather than irritate. The supervisor becomes the consulting specialist in education. Recommendations made must maintain a careful balance of the scientific and personal factors.

There are often several right ways of doing things; we cannot apply a pattern to all teachers alike. Some will get better results with one method and some with another. Uniformity of

method or a lack of should not be held against a teacher.

Evaluate the recitation in terms of the teacher's purpose.

Distinguish between essentials and nonessentials. Criticize outstanding points only—avoid the trivial—do not squabble over details. A teacher's weakness should not be hidden. It is better for the teacher to be embarrassed than that the pupils suffer because of poor teaching. Commend the good—condemn the bad—suggest the better. If a supervisor says only nice things, it may make the teacher happy, but it leads to diminishing returns. Allow time for growth. The evolution of a good teacher is a long, slow process.

Teachers should be led to analyze and evaluate their own work through skillful questioning.

**A. Tone.** Make criticism in a friendly, businesslike, *conversational* tone. The supervisor judges what he sees, calls it by its right name, but takes circumstances and conditions into consideration.

**B. Basis of criticism.** Criticism should be based on reasons such as aims, principles, and should be as objective as possible rather than mere personal opinion. Commendatory remarks should be specific—why good? The conference should be centered on a few outstanding ideas. The facts of the situation should be used in proper balance by the supervisor who should have sufficient data on hand to bear out these facts.

**C. Attitude.** Maintain a sincere attitude of open-mindedness and suspended judgment. Avoid a formal, judicial attitude. Render judgment when necessary effectively but inoffensively.

**D. Commendatory remarks.** Criticism should not be general. A supervisor<sup>2</sup> who merely says, "the lesson was good," but who fails to point out the particulars in which the lesson was good, merely commends. What is commendable must be *recognized* by the teacher as commendable or she loses respect for the supervisor's judgment or for sincerity. Compliment what is good, giving reasons why, unless fairly obvious. Give credit for ideas that are new. Be alert to specific improvements. Better to make mistakes than to antagonize.

**E. Recommendations.** Recommend new methods and technique if there is a reasonable belief that the new will be better than the old; that same is pedagogically sound, based on accepted pedagogical truths.

**F. Success of the conference.** When improved practices and attitudes result, without loss of human relationship, then the conference is successful.

<sup>2</sup>Chas. A. Wagner, *Common Sense in Supervision*, p. 39.

## High-School Increase in the United States

Dr. Frank M. Phillips, of the U. S. Department of the Interior, has issued a report, in which he presents data on 18,116 public high schools. The total enrollment for 1928 was 4,217,313, as compared with 3,065,009 in 1922.

The report shows that the junior high schools have increased from 387 in 1922, to 1,403 in 1928, and enrollments have advanced from 206,185 to 839,388 during the same period.

The junior-high-school movement started about the beginning of the present century. In 1922 the bureau had reports from 387 separately organized schools. The number increased from 387 to 704 in 1924, to 1,109 in 1926, and to 1,403, in 1928. The number of teachers increased from 8,105 in 1922, to 31,939 in 1928. During this time the enrollment increased from 206,158 to 839,388.

The junior-senior organizations, it was found, increased from 1,088 in 1922, to 1,316 in 1924, and then to 1,949 in 1926. These junior-senior

high schools employed 31,117 teachers in 1928, and enrolled 741,941 pupils.

In 1928, reports were received from 494 senior high schools. Three hundred and sixty-one of these are three-year schools, 133 are four-year schools of junior-high-school type which do not follow the first year of high school. The enrollment in these schools for 1928 was 379,518 pupils, and 16,060 teachers were employed. The reorganized schools enrolled 1,960,850 pupils, or 46.5 per cent of the total high-school enrollment for the year. The junior schools have 70.16 per cent of their enrollment below the traditional high-school years, and the junior-senior schools have 36.92 per cent below the first high-school year.

The total enrollment in all high schools reporting for 1928 was 4,217,313, 20.5 per cent of which is in grades below the last four years of the secondary school. The enrollment in the regular high-school years was 3,345,473.



# A Clerical Survey of a City School System

J. Frederic Ching, Research Assistant, Oakland Public Schools

## PART I. DERIVING A SCHEDULE OF ASSIGNMENT OF CLERICAL HELP FOR SENIOR HIGH SCHOOLS

One of the perplexing problems of any large school system is that of providing an economical yet efficient clerical staff to meet the needs of each particular school situation. To set up a schedule of assignment on a uniform basis for all schools, and which at the same time will adapt itself to any one school, is a difficult task.

The department of research of the Oakland public schools recently conducted a clerical survey in which the specific purpose was, "to prepare a basis of assignment of clerical help that will adequately meet the needs of the junior and senior high schools." To do this it was necessary, first, to make a thorough job analysis of each position; second, to understand the nature of the demands made upon the office staff which have influenced the type of organization; and third, to measure the relative efficiency of the work being done.

### Organization Factors

The clerical needs of a school system are largely resultant of the type of organization within each school itself and the demands made of it in the way of reports, records, etc., by the administrative officers. A brief account will be given here of the organization factors which prevail in the Oakland school system, in the light of which the recommendations of this study were made. The applicability of this study to other large school systems may be had only through an understanding of the underlying factors.

These factors are:

1. The clerical staff of the Oakland school department is on a civil service basis. This is advantageous in that appointments are not forced upon the school system through political urge, while on the other hand, the selection of members of the clerical staff is limited to those who are willing to take the civil service examinations. The classified positions affecting the junior and senior high schools and the salary range of each is as follows:

	Salary Range
a) High-School Principal's Secretary....	\$ 95 - \$135
b) Junior-High Principal's Clerk.....	\$ 85 - \$125
c) Textbook Clerk.....	\$ 90 - \$125
d) Treasurer's Clerk.....	\$ 95 - \$125
e) Library Clerk.....	\$ 90 - \$125
f) High-School Principal's Clerk.....	\$ 85 - \$115
g) Elementary Principal's Clerk.....	\$ 85 - \$ 90

An additional position not classified as civil service is that of the student-clerk. This position is filled by senior-high-school commercial students upon the fulfillment of certain academic requirements. Student-clerks work three hours a day for a remuneration of \$15 a month, credit also being allowed as for a commercial subject.

2. The organization of a senior high school usually makes for three general divisions of the clerical staff, viz.,

- The principal's office, with general management functions,
- The attendance office, responsible for the supervision of attendance in the school, and
- Miscellaneous offices, concerned with textbook care and distribution, and library clerical work.

The problem of analyzing the clerical situation in any school system will differ in the light of what duties are considered to be of a clerical nature. The most difficult case of differentiation were centered about certain functions of the attendance office. It was here necessary for a committee set up by the superintendent to

arbitrarily decide such matters for the guidance of the survey workers.

### Cost Analysis Necessary

A study of the clerical situation in a school system will be incomplete without a cost analysis of the time of principals, vice-principals, teacher executives, and counselors spent in clerical work. It is sometimes easier for the principal to assign a teacher to clerical work for a period or two during the day, or to do the work himself than to obtain additional clerical help. The actual cost of this type of service is extremely high.

### The Principal's Office

For the purpose of this study the clerical staff of the principal's office is defined to include such positions as: (a) the clerical force immediately connected with and working for the principal; (b) the school treasurer; (c) secretarial or clerical help allotted to vice-principals; and (d) the custodian of supplies.

It should be borne in mind that reference to the principal's office in this report is but one of the three divisions of the total high-school clerical staff, as heretofore mentioned. The attendance office staff and the textbook and library clerks will be considered independently.

### Handling of School Funds

In the Oakland school system were found three types of agencies for the handling of school funds, namely:

- The civil service employee appointed as school treasurer.
- The department head or teacher who handles the work in connection with the commercial department of the school.
- The teacher executive assigned school time to look after the school finances.

Cost-analysis figures indicated that so far as expense is concerned, the civil service employee gave more time to the work at less cost, but equal efficiency. The result of this finding was the recommendation that, "such positions involving the handling of locker keys, supplies, and the accounting for school funds be declared clerical positions, and certificated teachers engaged in such tasks be relieved of these duties by competent clerks."

The duties of the school treasurer were also defined in connection with a study of this office. These duties are as follows:

- The handling of all school funds.
- The handling of pupil-locker keys.
- The requisitioning and handling of all school supplies.
- The issuing of classroom supplies to teachers.
- The handling of lost and found articles.

It seems to be desirable educationally to train commercial students in the work of the school bank. The recommendations made concerning the school treasurer do not conflict with this plan, but facilitate it by making it possible to have a commercially trained person in the school bank at all hours of the school day. The appointment of a clerk to this position is not dependent upon the administrative possibility of assigning a given teacher to the task of office supervision during the working hours of the pupils.

### Handling of Classroom Supplies

An analysis of this phase of routine work revealed various methods used and persons responsible for the care and distribution of school supplies. The following recommendations cover this point:

- The care and distribution of classroom supplies should be a function of the treasurer's office.

- Supplies should be distributed as follows:

- Once each week at a stated period.
- Only upon written requisition by the teacher.

A systematic distribution of supplies offers a control over their use as well as a reduction of the number of interruptions during the day.

### The School-Attendance Office

Each high-school staff is equipped with an organization designed to assist in securing the highest percentage of attendance possible. This organization is an addition to the central-office attendance bureau which functions as a directing agency and a bureau of legal as well as field assistance. The local school-attendance office handles all cases of absences, tardiness, excuses for absence and has, in addition, the responsibility of keeping the child accounting records. Despite the similarity of functions in all the attendance offices of the high schools, there were found to be five different types of organizations to administer the duties of this office. The cost of maintaining the various types of organization varied from \$1.69 to \$5.30 per pupil. The number of cases within each type of organization was so limited that to mention the type and its corresponding cost would not be of any significance. However, one generalization can be made, namely, in those schools where the administrative officers have shouldered the responsibility for practically all of the attendance work, the cost per pupil appears to be excessive. The administrator's time can easily be filled with the details of attendance supervision which might profitably be delegated to other school officers, leaving him more time for supervision — his primary function.

A proposed attendance-staff organization was set up by the survey and called for an attendance secretary to be in charge. This was in conformity to the following policy adopted by the survey committee before drawing up the specific recommendations, namely, "That two divisions of the high-school office should be formed, namely, the attendance office and the principal's office. Each division should be in charge of a competent secretary to whom all matters pertaining to the clerical work of that division should be referred." This staff was designed to carry all of the routine work in connection with the office and as much of the minor cases of adjustment as the personality and judgment of the attendance secretary could handle. Supervision of this staff was placed in the hands of the administrative officers of the school, it being intended that they should handle all serious cases of discipline and attendance.

To give a clearer understanding of the functions of the high-school-attendance office and the division of duties recommended, a list of the major duties of each classified position which might be found in high-school attendance work follows:

#### A. List of Major Duties Which Should be Assigned to the Attendance Secretary:

- Make all local and state statistical reports on attendance.
- Receive excuses for absence and tardiness.
- Check all attendance irregularities.
- Interview habitual truants and tardy pupils.
- Register new students.
- Check blanket transfers.
- Make out chart showing fluctuations of attendance.
- Call all homes every day for students not in attendance.
- Keep record of all credentials, schedule cards, introduction cards, received from junior



high schools and elementary schools at the beginning of the term.

10. Check all new entries for manner of entry. See that records are properly made out and sent to the attendance department. Telephone schools and check up all errors so that each student is properly transferred or enrolled.

11. Make weekly bulletin to teachers on all students entered, left, or absent for several days.

12. Issue permits to leave and see that they are signed and returned.

13. Keep list of students suspended during term with date of suspension and date of return. Check to see that they return in the stated time.

14. Phone home of absent students each period.

15. Report cases to the attendance officer.

16. Make attendance report weekly to principal.

*B. List of Major Duties Which Should be Assigned to the Principal's Clerk in the Attendance Office:*

1. Assist in the receiving of excuses for absence and tardiness.

2. Post attendance and tardiness records.

3. Check, stamp, sign, and time all absence and tardy slips.

4. Check large enrollment cards to see that they are O.K. to send to the attendance department.

5. Type a list of all pupils registered in school, including names, addresses, telephone numbers, and major rooms.

6. Record times tardy and days absent on register at end of term.

7. Clear personal files of all graduates and students who have left.

8. Assist with statistical reports.

9. Fill out and turn in "nonresident" slips at the end of each term.

10. Make up major lists for incoming students.

11. Keep record of all changes in enrollment.

12. Keep list of all students absent for five or more days.

*C. List of Major Duties Which Should be Assigned to the Student Clerks in the Attendance Office:*

1. Post attendance and tardy records.

2. Copy program changes.

3. Dictation and typing.

4. Make stencils, mimeograph, cut and make pads for all special forms used in attendance work.

5. File correspondence, stencils, cards, etc.

6. Keep directory up-to-date for lefts and new enrollments.

The duties of the student clerk and the principal's clerk overlap to some extent. This means that where a student clerk is not assigned to a particular school, duties ordinarily assigned to her will have to be carried by a person of the next ranking position.

### The Textbook Clerk and Library Clerk

Each high school is assigned a textbook clerk, and the larger high schools have a library clerk. The duties of the textbook clerk consist primarily of collecting, distributing, and accounting for all school textbooks. The library clerk's duties relieve the librarian of much of her clerical work in connection with the accessioning and accounting for all library books. This allows the librarian time in which to render the school efficient library service.

The schedule of assignment of clerical help calls for but one textbook clerk for all schools within the enrollment range of from 800 to 2,300. This is not overlooking an equitable distribution of help, but it is assumed that in the smaller schools the textbook clerk will work under the direction of the librarian, assisting her in the work of the library wherever possible. In the larger schools the library clerk carries part of the clerical burden.

SCHEDULE OF ASSIGNMENT OF CLERICAL HELP - SENIOR AND JUNIOR-SENIOR HIGH SCHOOLS																
Enrollment	PRINCIPAL'S OFFICE				ATTENDANCE OFFICE				MISCELLANEOUS				TOTAL POSITIONS			
	Prin. Secy.	Prin. Clerk	Sch. Treas.	Stud. Clerk	Att. Secy.	Prin. Clerk	Stud. Clerk	Text. Clerk	Lib. Cl. C.S. S.C.	Foll. Up Clerk	Prin. Secy.	Att. Secy.	Prin. Clerk	Stud. Clerk	Total Cost <sup>2</sup>	Cost Per Pupil <sup>3</sup>
801-900	1		5/8		1	3/8		1			1	1	2		\$ 5820	\$6.85
901-1000	1	1/8	3/4		1	1/8	1	1			1	1	2	1	5970	6.29
1001-1100	1	1/8	7/8		1		2	1		1	1	1	2	3	6270	5.97
1101-1200	1		1	2	1		3	1		1	1	1	2	6	6720	5.94
1201-1300	1	1/2	1		1	1/2		1		1	1	1	3	1	7210	5.77
1301-1400	1	1/2	1	1	1	1/2	1	1	1	1	1	1	3	4	7660	5.67
1401-1500	1	1/2	1	2	1	1/2	2	1	1	1	1	1	3	6	7960	5.49
1501-1600	1	1/2	1	3	1	1/2	3	1	1/2	1	1	1	3 1/2	7	8720	5.63
1601-1700	1	1/2	1	3	1	1/2	4	1	1/2	1	1	1	3 1/2	8	8980	5.38
1701-1800	1	1	1	1	1	1	2	1	1/2	1	1	1	4 1/2	4	9570	5.44
1801-1900	1	1	1	2	1	1	3	1	1/2	1	1	1	4 1/2	7	9970	5.39
1901-2000	1	1	1	3	1	1	4	1	1/2	1	1	1	4 1/2	9	10270	5.27
2001-2100	1	1 1/2	1		1	1 1/2	2	1	1	1	1	1	6	3	11270	5.49
2101-2200	1	1 1/2	1	1	1	1 1/2	3	1	1	1	1	1	6	5	11570	5.36
2201-2300	1	1 1/2	1	2	1	1 1/2	3	1	1	1	1	1	6	6	11670	5.12

<sup>1</sup>School treasurer and textbook clerk considered here as principal's clerk.

<sup>2</sup>Based upon the average salaries for these positions.

<sup>3</sup>Based upon the mid-point enrollment figure and the total cost.

### SCHEDULE OF ASSIGNMENTS FOR CLERICAL HELP, OAKLAND, CALIFORNIA, HIGH SCHOOLS

Space does not permit an accounting of the details entering into the construction of the schedule of clerical assignment given here. Suffice to say that it was constructed to meet the needs of specific schools within certain enrollment intervals and then equalized somewhat to make the increases uniform and of general application to any senior high school within the system.

The applicability of the schedule of assignment to any other school system is dependent upon the relative differences in the types of organizations within the schools and the extent of school activities which burden the clerical staff. It must be remembered that this schedule provides a staff to handle all of the routine clerical duties and in addition the management of attendance and school personnel cases which have not developed into disciplinary problems.

It will be noted that the schedule of assignment lists one position not mentioned heretofore,

namely, the "follow-up clerk." This is a student-clerk position created to fill a special temporary need, namely, that of securing certain occupational data from every high-school graduate over a period of five years.

The table is to be read as follows: For a high school whose enrollment is between 801 and 900, the total positions called for in the clerical staff are: 1 principal's secretary, 1 attendance secretary, and 2 principal's clerks. Their time is to be divided among the school offices as follows: The principal's office is to have 1 principal's secretary and a principal's clerk who will give 5/8 of her time daily (approximately 5 hours) to the school treasury work; the balance of her time will be spent in the attendance office assisting the attendance secretary. The school is also entitled to a textbook clerk. The total average cost of these positions is \$5,820 a year or \$6.85 a pupil.

(To be Concluded)

## Trade Practices in the School-Furniture Industry

It is said that every industry is afflicted with practices which are not countenanced by the rank and file connected with the same. Many of the modern trade associations have found that the elimination of evils, and the striving toward higher standards, forms a large part of the organization endeavor.

A conference held a few months ago by the so-called "Public Seating Industry" at Washington, D. C., concerned itself almost wholly with trade practices which ought not to be tolerated by an industry that strives to command the respect and confidence of the public.

The conference assumed some significance from the standpoint of the school public, since the particular industry is engaged in the manufacture and sale of school furniture and many of the supply items that find their way into the modern schoolhouse.

The deliberations and findings of that conference, which have now been made public, find expression in a series of resolutions which are condemnatory of every unethical and unbusinesslike procedure and transaction.

The first four resolutions concern themselves with the relations of manufacturer to manufacturer in which the consumer is not directly interested, except that the manufacturer who is dishonest with his competitors is likely to be equally dishonest with his customers. The producer who sanctions on the part of his agent, dealer, or distributor false and misleading statements regarding his competitor is not to be trusted in any transaction.

Then there is the manufacturer who misrepresents his own product. Here the conference holds that the sale or offer to sell by manufac-

turer or his agent, dealer, or distributor, of any item of public seating products, by false or misleading statements of guarantees, or by concealment or misrepresentation of the facts, as to materials, construction or finish, is an unfair trade practice.

It also says that false and misleading promises by a manufacturer or his agent, dealer, or distributor, of time of delivery and performance which cannot reasonably be fulfilled, and false and misleading statements as to facilities, equipment, and ability to perform the work, are condemned by the industry.

The industry condemns the practice of a manufacturer quoting a minimum cost price to his agent, with the understanding that the agent may add such additional commission as he desires in instances or cases where such practices result in price discrimination.

It also holds that the payment or allowance by a manufacturer or an agent, dealer, or distributor, of secret rebates and or unearned refunds, credits, or cash discounts, whether in the form of money or otherwise, is an unfair trade practice.

On the subject of deceptive and late bidding the conference expresses itself in the following language: "Submitting deceptive or misleading bids to secure award as low bidder and subsequently making changes in materials, finish, transportation, installation, etc., other than originally proposed, is an unfair method of competition. The practice of submitting subsequent bids after bids have been received, opened, exposed, or awarded, unless there is a change of specifications requiring reconsideration and new bids, in condemned as unfair trade practice."



# Small Pennsylvania Schoolhouses

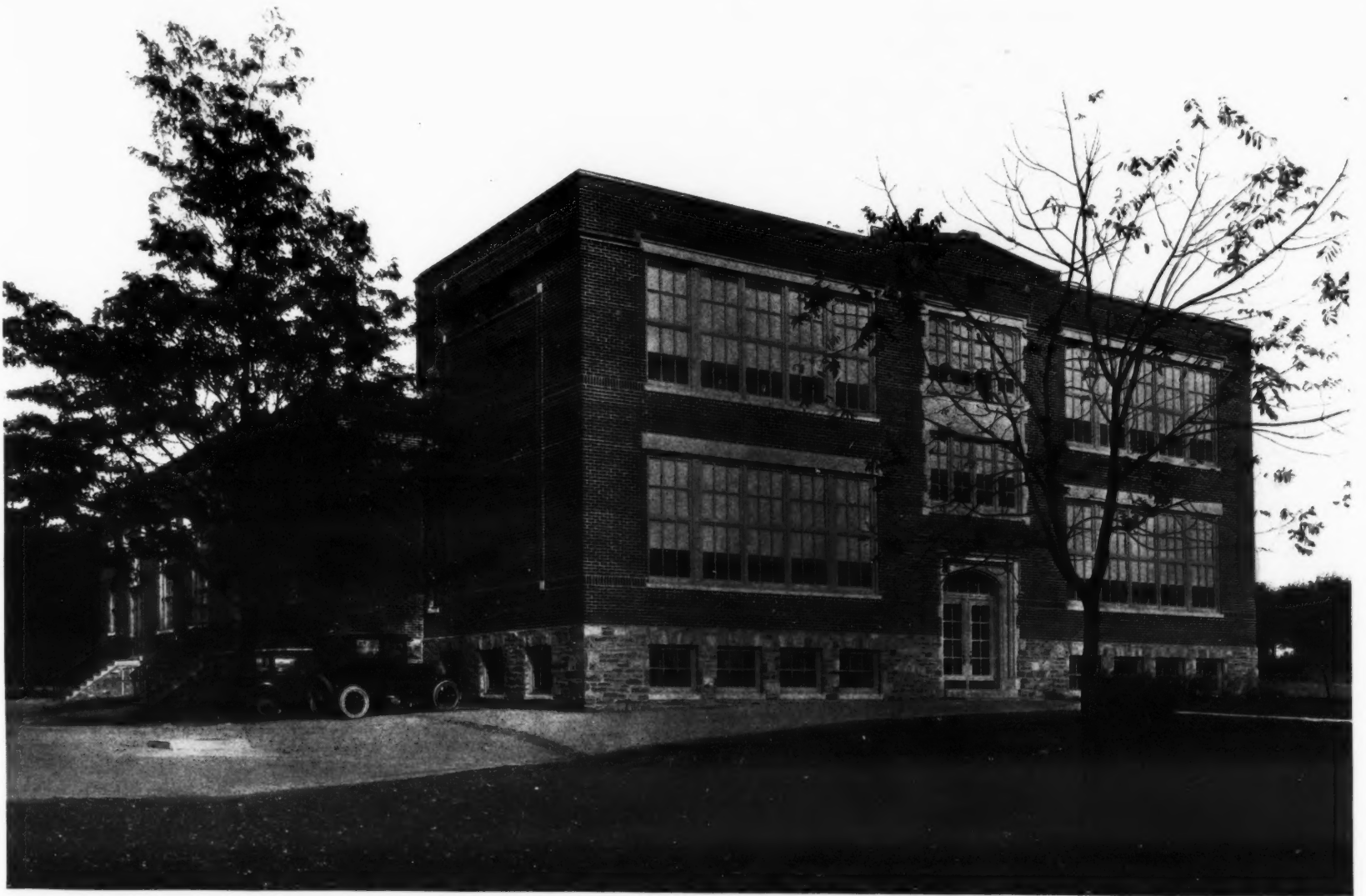
*The Work of Mr. Watson K. Phillips, Architect*

The opinion is common that the planning and construction of large city school buildings involves all the difficult problems which a school architect can tackle. The statement is made thoughtlessly, because it is not generally realized that the school architect who plans and builds small schoolhouses in villages and con-

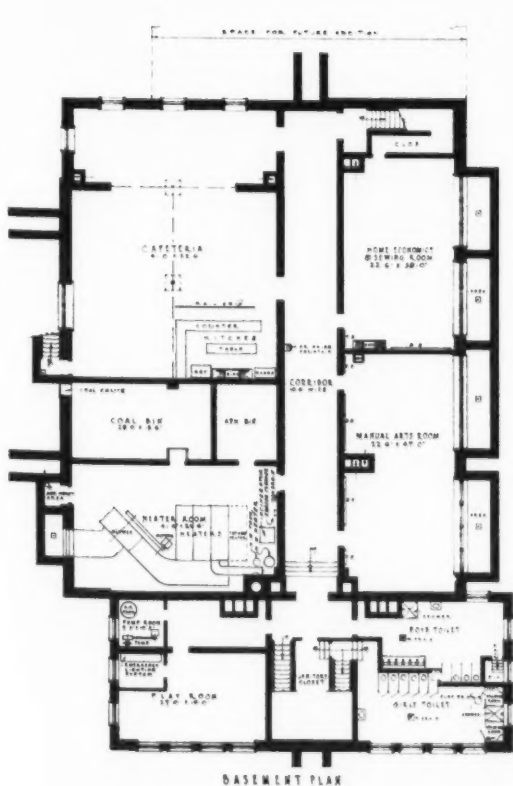
solidated school districts often has insurmountable difficulties and limitations to overcome in the shape of slender means, imperfect studies of the school program as such, and unsuitable local materials.

A group of recent school buildings which represents an intimate study of local school situa-

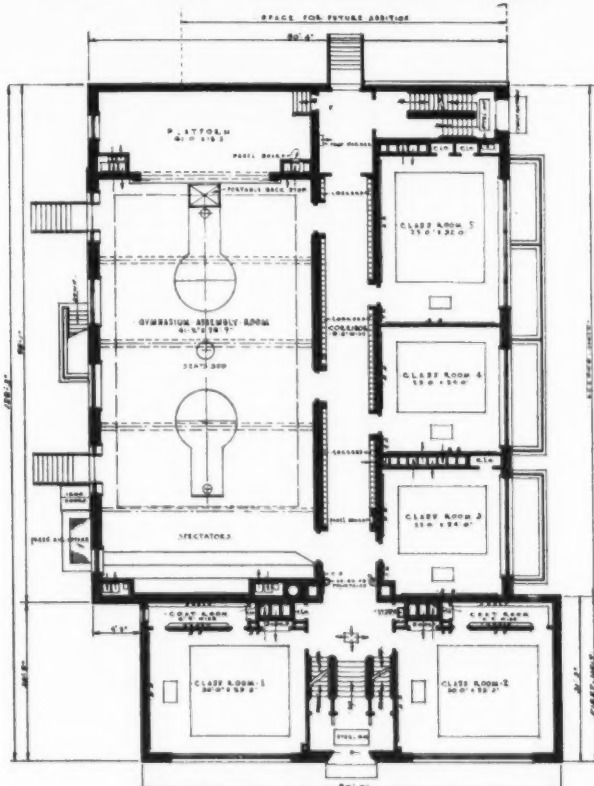
tions and which represents a fine adaptation of school buildings to local school programs is presented in these pages. The schools are the work of Mr. Watson K. Phillips, of Philadelphia, and all of the buildings are in the eastern part of the State of Pennsylvania near the City of Philadelphia.



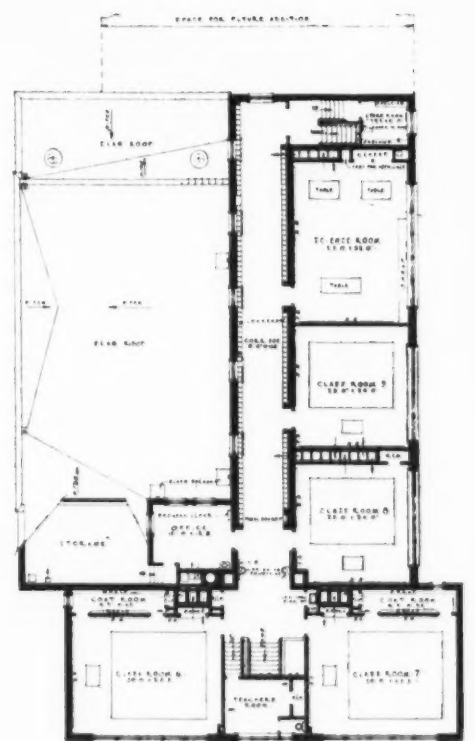
WHITPAIN TOWNSHIP HIGH AND GRADE SCHOOL, MONTGOMERY COUNTY, PENNSYLVANIA  
Watson K. Phillips, Architect, Philadelphia, Pennsylvania



BASEMENT PLAN



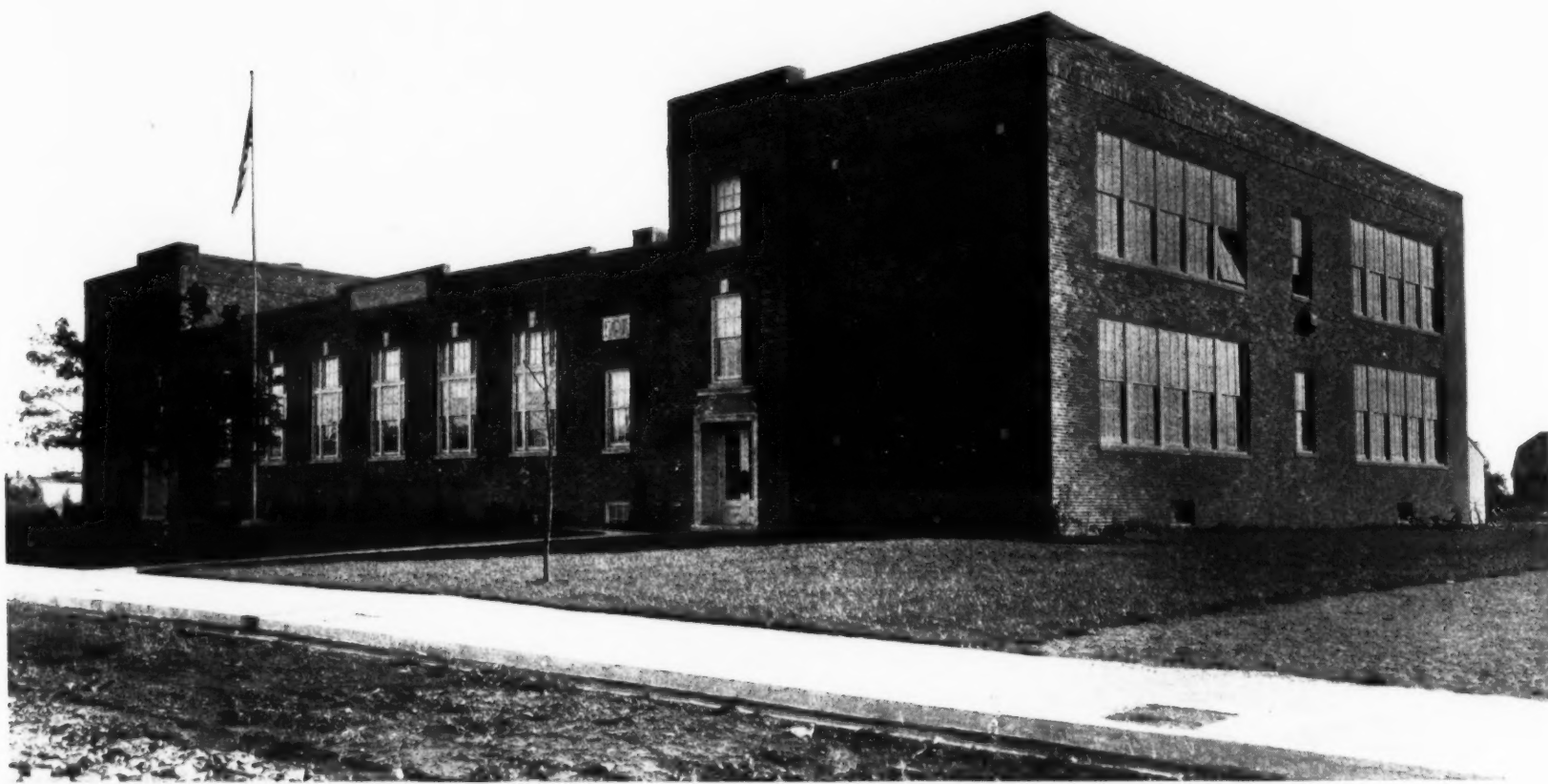
FIRST FLOOR PLAN



SECOND FLOOR PLAN

WHITPAIN TOWNSHIP HIGH AND GRADE SCHOOL, MONTGOMERY COUNTY, PENNSYLVANIA  
Watson K. Phillips, Architect, Philadelphia, Pennsylvania





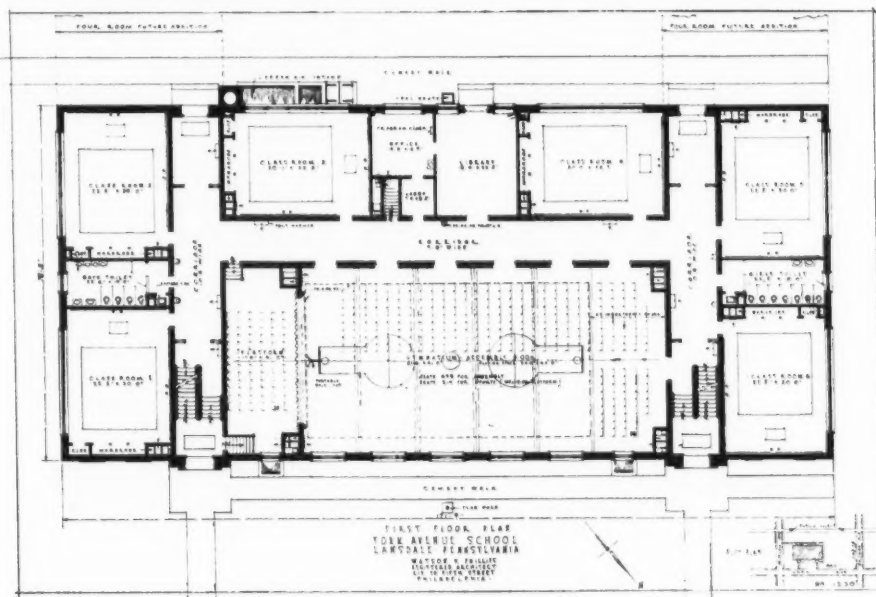
YORK AVENUE SCHOOL, LANSDALE, PENNSYLVANIA  
Watson K. Phillips, Architect, Philadelphia, Pennsylvania

### Whitpain Township High and Grade School

The Whitpain township high- and grade-school building was originally planned in 1917, when only four classrooms were required for the educational needs of the district. It was originally thought that five additional schoolrooms and a small assembly hall would take care of all needs for some time. The foresight of the architect, however, caused the present plan to be drawn. With some slight modification, it has now been carried out to provide a building which affords a rather well-rounded educational program.

The addition contains five standard classrooms, a science room, manual-arts and home-economics rooms, an office, a cafeteria, and a large combination gymnasium-assembly room.

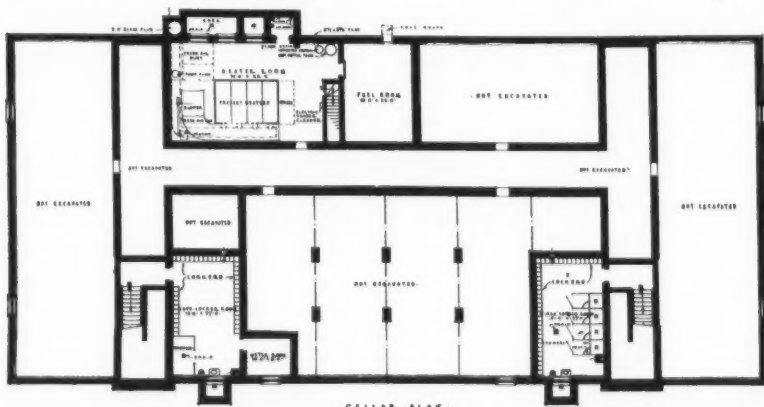
The latter includes a basketball court 35 by 60 ft. Space is provided at the rear and on the platform for 200 spectators. The basketball backstop at the front is removable. The side walls of the gymnasium are lined with glazed brick to a height of 7 feet. The ceiling is treated with acoustic plaster. The stage is large enough for school theatricals. Disappearing footlights extend across the stage front, and two lines of border lights are provided at the ceiling. All the platform and auditorium lights are controlled from a panel board on the stage.



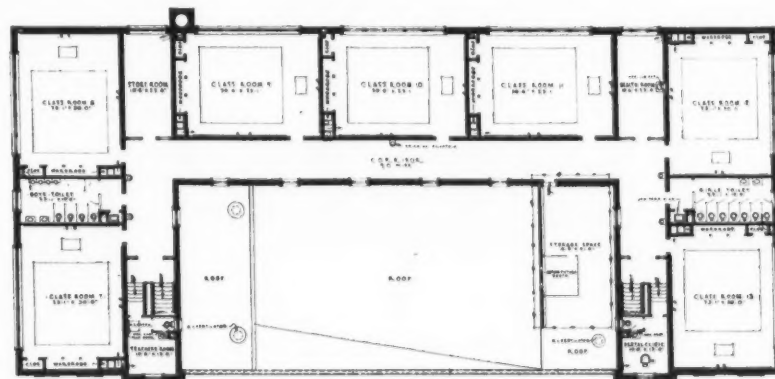
FIRST FLOOR PLAN, YORK AVENUE SCHOOL, LANSDALE, PENNSYLVANIA  
Watson K. Phillips, Architect, Philadelphia, Pennsylvania

Metal lockers are built in the walls along the first- and second-story corridors. The corridor floors are covered with rubber-stone tile; all other floors are of rift yellow pine. Windows of the reversible type are used in all classrooms.

A warm-air heating and ventilating system has been installed. A gas-fired incinerator, an ash-hoist, a hot-water heater, a program-clock and bell system, a fire alarm system, with break-glass stations on all floors, are included in



CELLAR PLAN



SECOND FLOOR PLAN

YORK AVENUE SCHOOL, LANSDALE, PENNSYLVANIA  
Watson K. Phillips, Architect, Philadelphia, Pennsylvania



the equipment. An emergency lighting system is provided for the gymnasium-assembly room, the corridors, and the exits.

The cost of the addition was \$90,000. The building is located near Blue Bell, Pa., and is owned by the school district of Whitpain township, Montgomery county, Pa.

### York Avenue School

Lansdale, Pa., is a rapidly growing town with diversified industries. For some years the school board has been hard put to keep up with the population growth for the reason that, while the citizens desire good school facilities, they are not always agreeable to paying increased taxes to cover the added costs. When the schools became so overcrowded as to make half sessions necessary, the board realized it could wait no longer and decided to build a new school to care for the rapidly growing west end of the town.

After studying the local needs and programs, the board finally decided to erect a fourteen-room building and to include a large combination room for assembly purposes, gymnasium, rainy-day play space, etc.

The limitations of the site determined the location and shape of the building. The lot is long and narrow and for that reason it was necessary to place the building in one corner so as to provide ample playground space. The lot faces north and the architect recommended that the gymnasium-assembly room be placed on the front so that all classrooms would receive sunshine at some time during the day. Ground water is high in this entire section of the town which made it undesirable to provide a basement for more than the heating system.

The section which the building serves is growing and the plan was, therefore, arranged to permit considerable enlargement.

The principal's office is placed in the rear of the building adjoining the library so that oversight can be given to this room and to the playground.

The gymnasium-assembly floor is marked for a standard basketball court inclosed. A folding net is used during games. A portable backstop has been placed at the front and may be moved to one side when not in use. Spectators are accommodated at the rear, on the platform, and along the sides. The platform is completely equipped with footlights, border lights, draperies, sprinkler system, hose racks, etc. A motion-picture booth is provided in the storage space over the rear. An emergency lighting system has been installed in this room, in the corridors, and exits. The ceiling is treated with an acoustic material.

The building is erected with brick walls and has stairways, corridors, and toilet-room floors constructed of fire-resistive materials. The walls of the corridors and of the gymnasium-assembly room are faced with glazed brick. All windows are fitted with reversible sash.

Classroom walls and ceilings are plastered, and unselected birch in natural finish has been used for wood trim. All classrooms are provided with slate blackboards, cork bulletin boards, and tack boards.

The toilet rooms, which are widely separated on each floor, are equipped with heavy-duty plumbing fixtures. The locker and shower rooms are similarly fitted with school-type plumbing fixtures.

The equipment of the school includes a clock system controlling the program clocks and signal bells in all rooms, and inside and outside call bells, a fire-alarm system, an ash hoist, hot-water heater, etc. The building is heated and ventilated by means of warm-air system, with automatic temperature control.

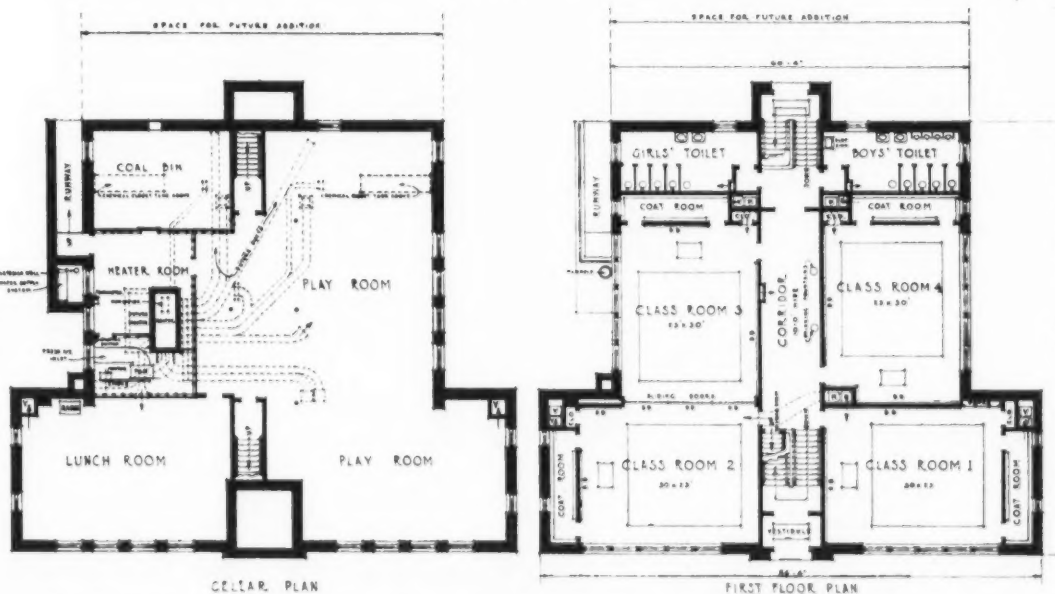
The building was erected with the proceeds of a bond issue of \$150,000. The building proper cost \$115,163.36, or about 24 cents per cubic foot. The entire plant, including the



PENN SQUARE SCHOOL, EAST NORRITON SCHOOL DISTRICT, MONTGOMERY COUNTY, PENNSYLVANIA  
Watson K. Phillips, Architect, Philadelphia, Pennsylvania



FLOOR PLANS OF THE PENN SQUARE SCHOOL, EAST NORRITON SCHOOL DISTRICT,



MONTGOMERY TOWNSHIP CONSOLIDATED SCHOOL, MONTGOMERY COUNTY, PENNSYLVANIA  
Watson K. Phillips, Architect, Philadelphia, Pennsylvania



building, the site, furniture and equipment, the walks, the grading, and the architect's fees, amounted to \$145,963.96.

### Penn Square School

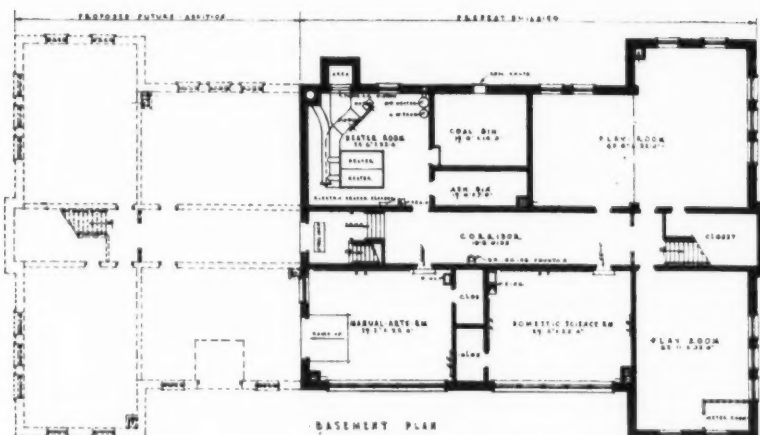
The Penn Square School replaces an older building which had been erected many years ago under a unique cooperative plan in which the board of school directors of the East Norriton township and a thriving lyceum society cooperated. Two classrooms of the present new building were erected a few years ago to supplement the old building, and seven additional classrooms were completed recently to permit the final abandonment of the old, outworn structure.

The Penn Square School is built of variegated red brick on a stone foundation. It is so designed that additions may be made in the future. Two classrooms are separated by a folding partition for use as an assembly room. The hilly character of the school site has made it possible to provide two standard classrooms entirely above grade at the rear of the basement.

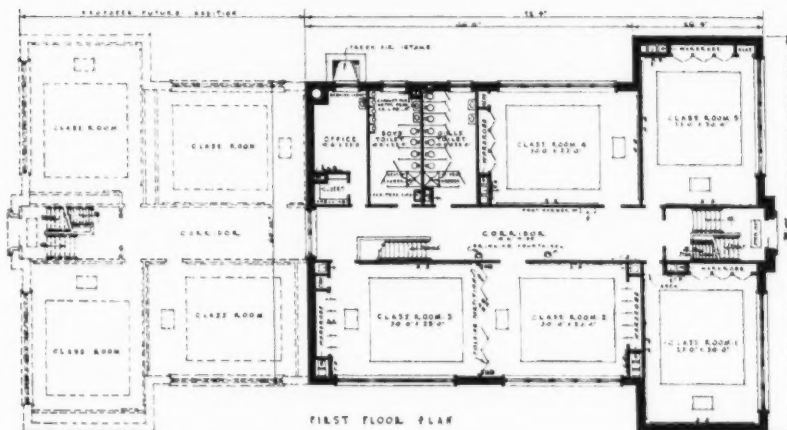
The building is heated by a steam system provided with a boiler especially designed to burn Buckwheat hard coal. Unit ventilators are installed in all classrooms. Natural slate black-



NORTH GLENSIDE SCHOOL, UPPER DUBLIN TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA  
Watson K. Phillips, Architect, Philadelphia, Pennsylvania



NORTH GLENSIDE SCHOOL, UPPER DUBLIN TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA  
Watson K. Phillips, Architect, Philadelphia, Pennsylvania



boards and cork bulletin and tack boards are provided in the classrooms. A program clock and a fire-alarm system are included in the electrical equipment.

The cost of the original structure and of the additions together, has been about \$65,000.

### North Glenside School

The lower end of Upper Dublin township, Montgomery county, Pennsylvania, contains a considerable proportion of colored population. The North Glenside School building, illustrating this article, was erected to provide exactly the same facilities for the colored children as is given to the white children.

The building contains five standard classrooms on the first floor. Rooms for manual arts and home economics are provided in the basement. The building is so designed that additional classroom space may be provided as the need arises.

The exterior walls are of local stone; the floors are frame; stairs are fireproof. The wood trim in classrooms, etc., is unselected birch. Ample slate blackboard, cork bulletin board and tack-board space is provided in each classroom.

The building is heated and ventilated by means of a warm-air blower system.

Two of the classrooms are separated by a folding partition so they may be thrown together for assembly or community use. An emergency lighting system is provided for class-

rooms Nos. 2 and 3, the corridors, and the exits. A fire-alarm system, and an electric call-bell system are included.

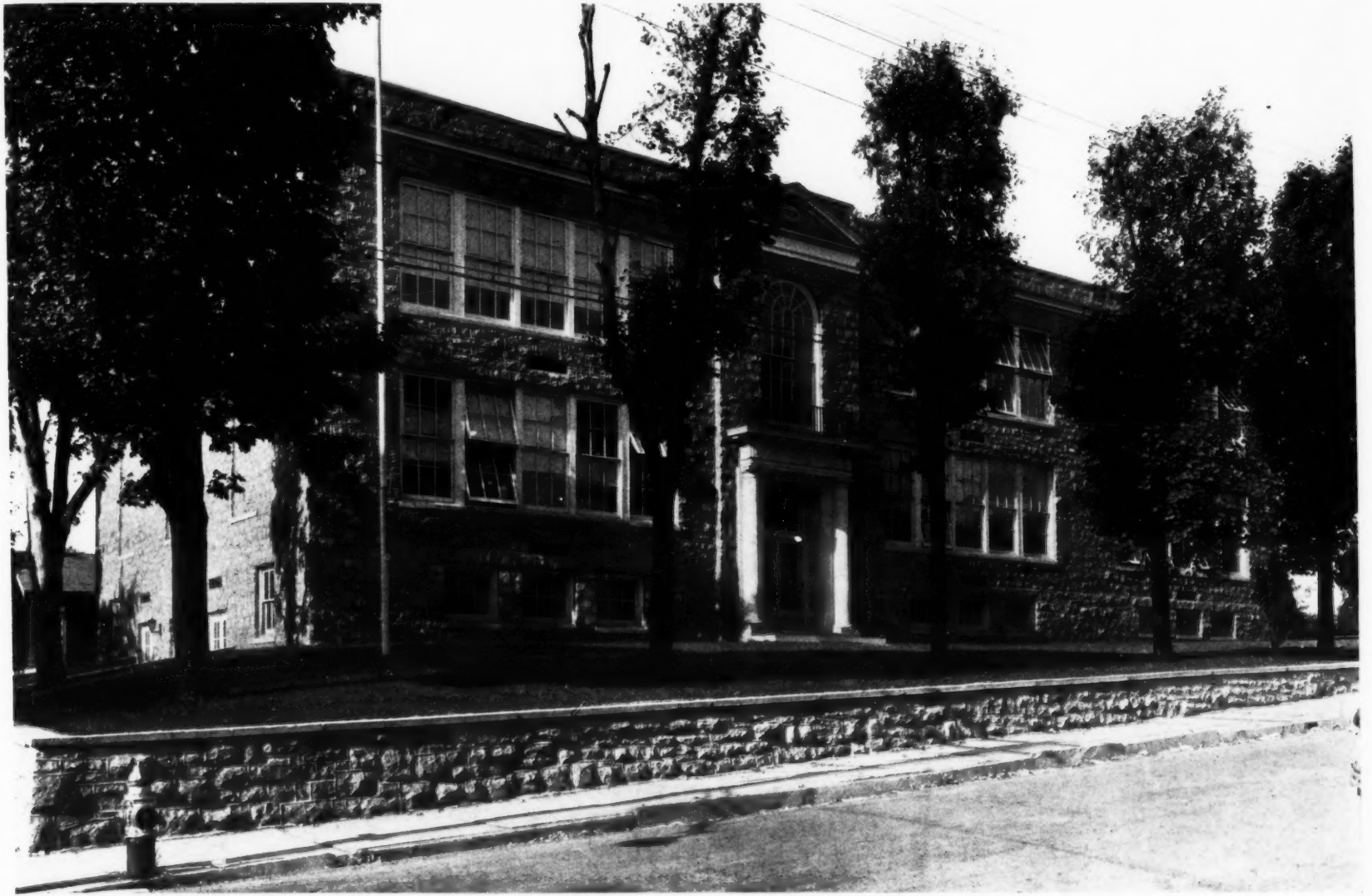
The building was erected at a cost of about

\$43,000. The total cost, including the building, plot of ground, sewage-disposal system, architect's fee, furniture and equipment, grading, etc., was \$55,007.



MONTGOMERY TOWNSHIP CONSOLIDATED SCHOOL, MONTGOMERY COUNTY, PENNSYLVANIA  
Watson K. Phillips, Architect, Philadelphia, Pennsylvania





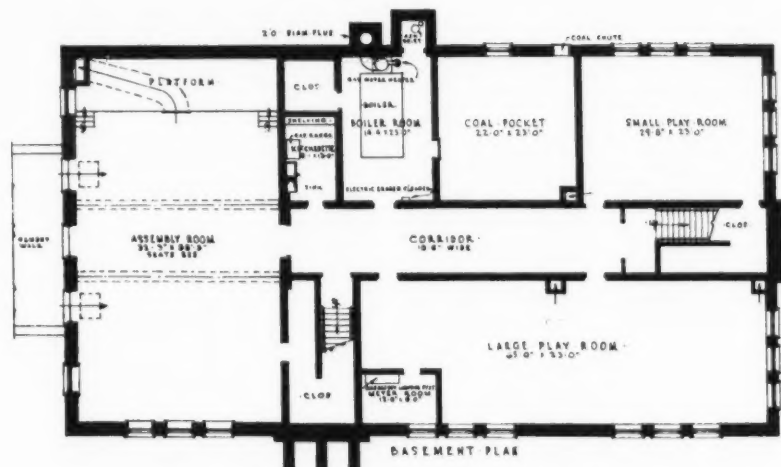
FOREST AVENUE SCHOOL, AMBLER, PENNSYLVANIA  
Watson K. Phillips, Architect, Philadelphia, Pennsylvania

Montgomery Township School

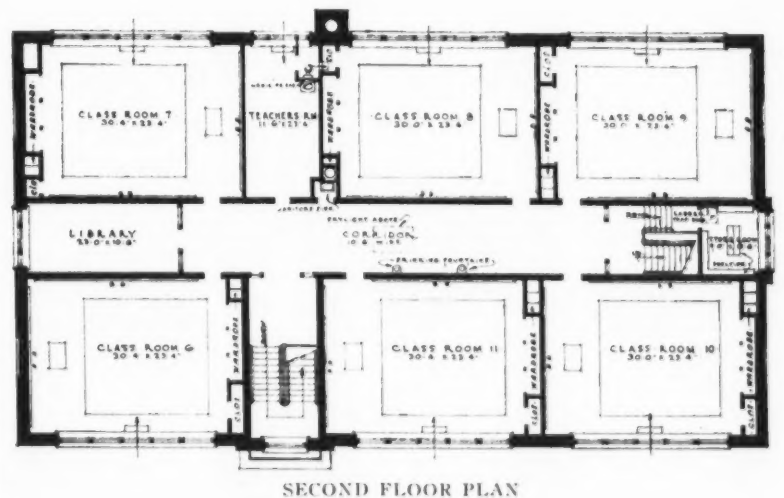
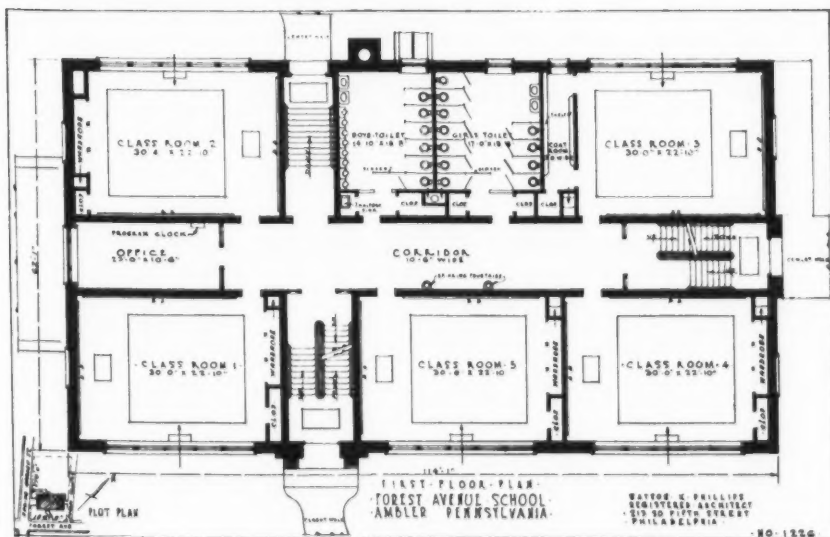
The School District of Montgomery township, Pennsylvania, tried for years to bring about the consolidation of the four scattered one-teacher schools into a centrally located school, but the voters always refused to support the proposition. Finally, after a strenuous campaign, an election favorable to the project was carried by one vote. The opposition took the matter to court in an endeavor to overthrow the election. This was the last straw, and the school board unanimously voted to go ahead with the project by raising the tax rate to the legal limit for two years as a means of financing a new four-room building.

The building stands in Montgomeryville, which is the geographic and trading center of a prosperous farm community. It is built of a local brown stone, and in order to harmonize with adjoining buildings, was designed with a

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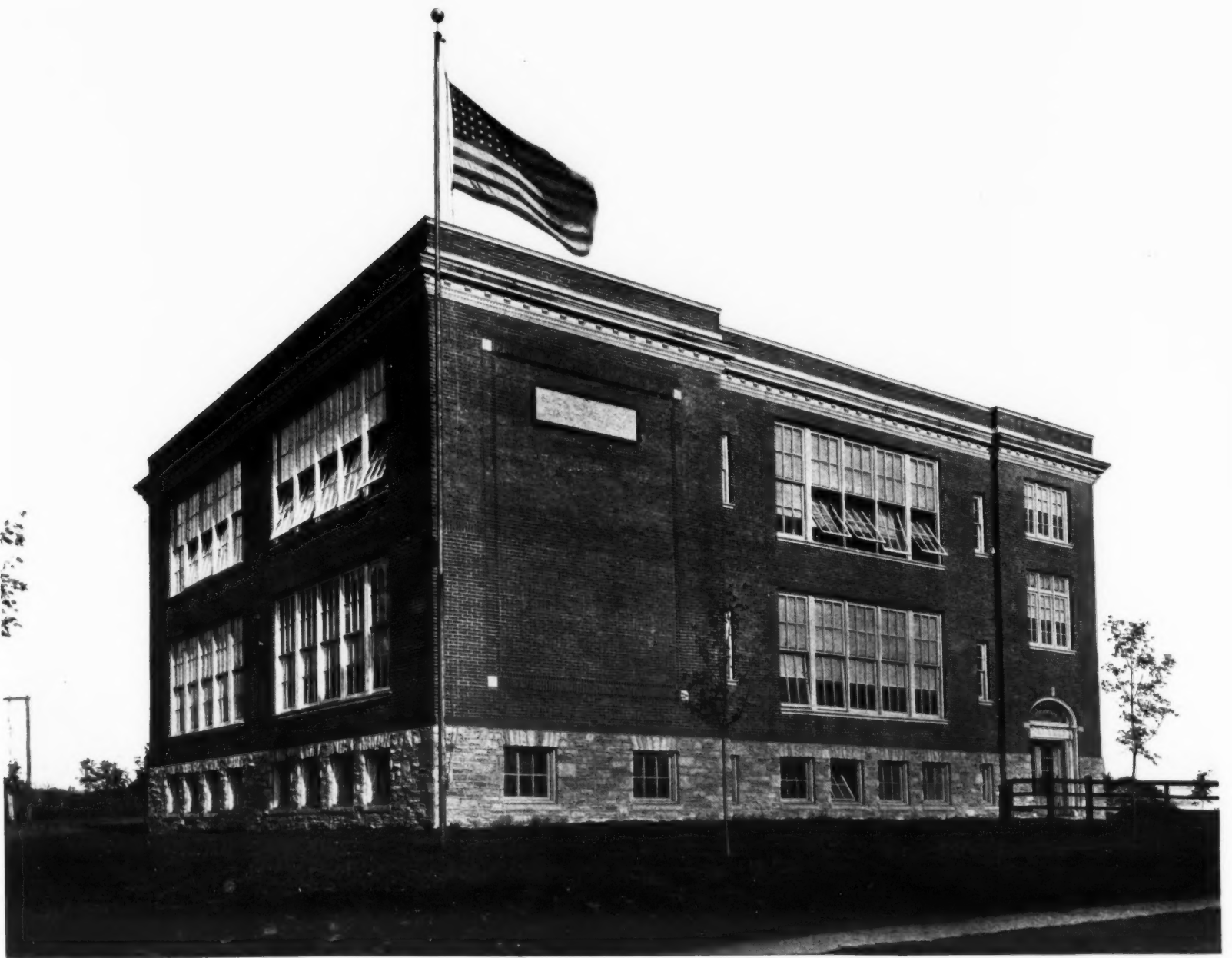


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Watson K. Phillips, Architect, Philadelphia, Pennsylvania

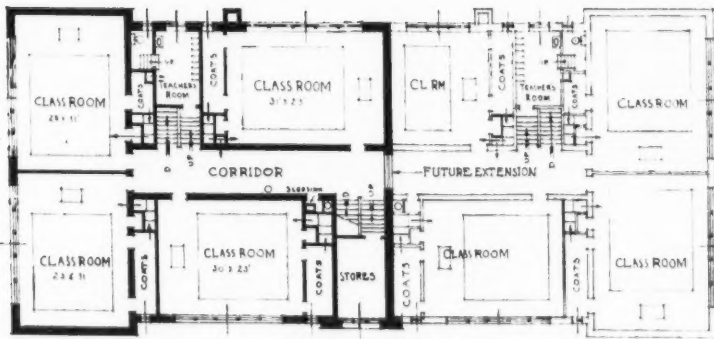


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Watson K. Phillips, Architect, Philadelphia, Pennsylvania

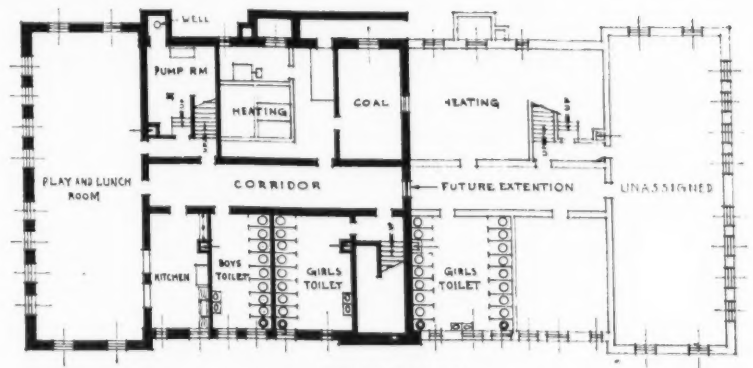




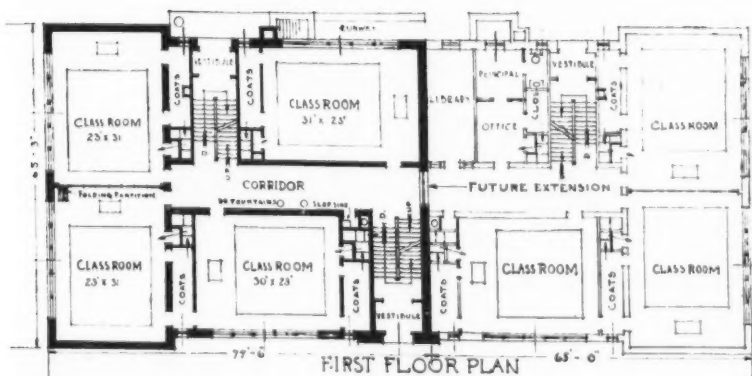
BLACK HORSE SCHOOL, PLYMOUTH TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA  
Watson K. Phillips, Architect, Philadelphia, Pennsylvania



SECOND FLOOR PLAN



CELLAR PLAN



FIRST FLOOR PLAN

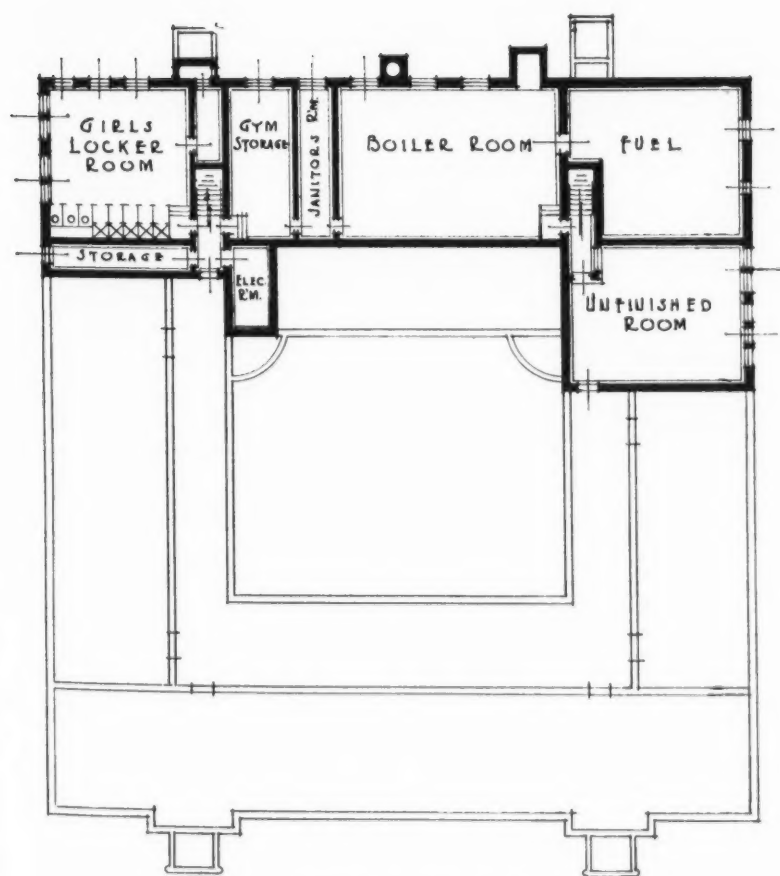


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Watson K. Phillips, Architect, Philadelphia, Pennsylvania

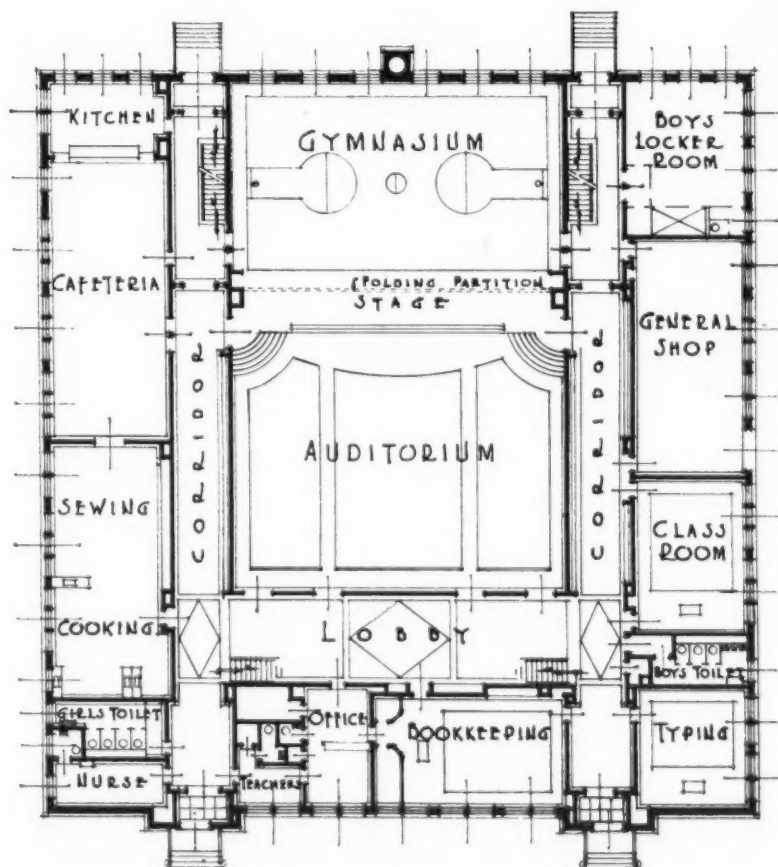




ROBERT E. FITCH HIGH SCHOOL, GROTON, CONNECTICUT  
Haynes and Mason, Architects, Fitchburg, Massachusetts



GROUND FLOOR PLAN



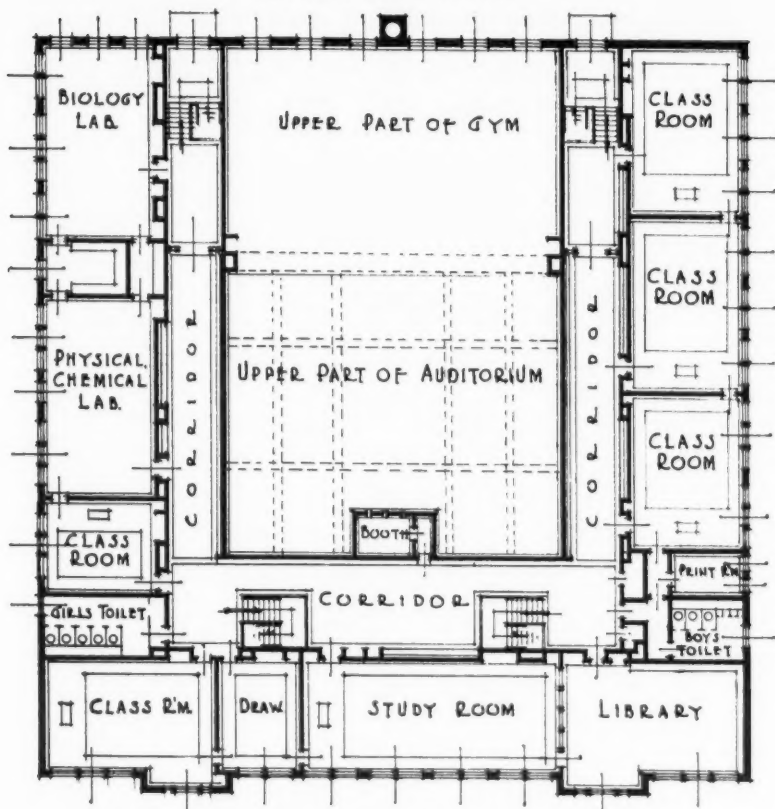
FIRST FLOOR PLAN

FLOOR PLANS OF THE ROBERT E. FITCH HIGH SCHOOL, GROTON, CONNECTICUT  
Haynes and Mason, Architects, Fitchburg, Massachusetts





ENTRANCE DETAILS

SEWING ROOM, ROBERT E. FITCH HIGH SCHOOL,  
GROTON, CONNECTICUT

SECOND FLOOR PLAN

ROBERT E. FITCH HIGH SCHOOL, GROTON, CONNECTICUT  
Haynes and Mason, Architects, Fitchburg, Massachusetts

### THE FITCH HIGH SCHOOL, GROTON, CONN.

The Robert E. Fitch High School at Groton, Conn., erected with funds provided through the will of a citizen of the community, Mr. Charles P. Fitch, was completed and occupied in December, 1929. The building, which is a community and social center as well as a complete school, is located on a large site near the center of the town adjoining the town hall.

The building has been constructed with exterior walls of varicolored tapestry brick and cast stone, which brings out in a pleasing manner the graceful details of the Georgian design. The structure is two stories high and contains only a small basement at the rear, where the sloping site provides for ample window areas.

The footings and basement walls of the entire building are of concrete. The inner and outer walls are brick, and the entire framework is steel incased in concrete. The floors are of concrete, covered with linoleum. The first-floor corridor is of Tiltex, and the treads of the stairways are of concrete, covered with brown linoleum. The finish throughout the building is of the simplest and most serviceable type. The classrooms are plastered and have linoleum floors, metal trim, and slate blackboards. The auditorium is finished with ornamental plaster and hardwood trim. Keene cement is used for dadoes and gravalithic cement is used for the

floors in the toilet rooms. The laboratories have surface floors of a special acid-resisting composition. In the corridors cement dadoes and metal trim are applied. Glazed tile has been used for the walls of the gymnasium.

The building has been very compactly planned, with the auditorium and gymnasium in the center, surrounded on three sides with corridors and classrooms. There are two main entrances in the front and two pupil entrances in the rear. On the first floor the administrators' office and the teachers' room adjoins one of the front entrances. On this same floor there is a large cafeteria, with kitchen, a large combined cooking and sewing laboratory, rooms for the commercial department, a general classroom, and a large shop. Toilets and locker rooms also are to be found on this floor.

On the second floor one wing is devoted to laboratories, and the other to classrooms. The front tier of rooms includes a classroom, a drawing room, a large study hall, and a library. As in the case of the first floor, the rooms are so located that there is close correlation between the departments, and multiple use of each space is possible.

The auditorium in the center of the building rises through two floors, and is so arranged that the stage serves for gymnasium purposes. Exceptionally large skylights over the auditorium and the gymnasium supplement the high-set

windows in the gymnasium. The auditorium and stage combined provide a seating capacity for a total of 1,000 persons. A fireproof folding partition, separating the gymnasium from the auditorium, is so placed that when it is extended, a rostrum 10 ft. deep provides for all ordinary school purposes. The auditorium has been carefully designed for good acoustics. It is equipped with a large velour stage curtain which harmonizes with the cream plaster and the rich brown of the hardwood trim.

The small basement at the rear of the building contains a girls' locker and shower room, several storage rooms, and space for the boilers, fuel, and heating apparatus. The boiler equipment consists of a Kewanee steel tubular boiler adapted for vapor heating. The ventilation is of the Wheeler window type. The sanitary equipment in the basement includes a water heater, an incinerator for garbage disposal, and an ash hoist.

The architects have been more than usually liberal in providing a spacious lobby at the front of the auditorium. This has been done to emphasize the memorial character of the building, and to permit of the installation of a bronze memorial tablet, display cases for trophies, and other school exhibits. The arrangement of the lobbies would undoubtedly have been considerably curtailed if the building had been planned

(Concluded on Page 124)



# The School Holding Company Dilemma in Indiana

W. W. Patty, Indiana University, and C. T. Malan, Indiana Teachers' College

On December 5, 1929, the Supreme Court of the State of Indiana brought to a climax, the swift development of *voluntary associations* formed by public-spirited men in various communities of the state for aiding school corporations to acquire school sites, buildings, and equipment.

To understand this decision, it is necessary to review the progress of Indiana education and school law from 1900 to 1928, responsible for the passage of the *holding companies law* of 1927. The principal facts may be listed as follows: (1) The demands for better physical equipment; (2) a higher age compulsory law; (3) consolidation of schools and transportation of pupils; (4) the sanitary schoolhouse law.

In 1907 the compulsory high-school-educational law returned many children to school, and with the increase in numbers arose the need for increased buildings and equipment. In 1911 Indiana passed a *sanitary schoolhouse law*, to provide schoolhouses which meet minimum standards of physical make-up. This law was based on the principle that the health of children is a state concern, and since the children's health depends partially on their physical environment, this environment should not be conducive to ill health. As a result of this law, many schoolhouses were condemned and had to be remodeled, or new ones built. The ensuing building activity taxed the school districts of the state to their full constitutional limit of 2 per cent on all taxables.

Another factor which has tremendously affected the cost of school buildings is the expanding curriculum demanded by the people. This has meant more classrooms and more buildings. In some cases, we have two or three curricula in the same school. Another factor which should not be overlooked in the financing of public-school sites, buildings, and equipment has been the depreciated value of the dollar, especially since 1913.

Thus, the history of education in Indiana since 1900 has been that of attempting to realize in concrete terms great educational ideals. Each step of this advance has increased the cost of education on the physical side. Moreover, the state has been handicapped in its building program due to a constitutional limitation. The constitution of 1851 provided "that no political or municipal corporation in the state shall ever become indebted . . . in any manner or for any purpose, or to any amount, in the aggregated exceeding 2 per cent on the value of taxable property within such corporation."<sup>1</sup>

## The School-Bond Issues

It should be noted that a 6 per cent limit is the common legal restriction of the various states. The Indiana limit is only one third of the amount commonly allowed. This 2 per cent constitutes the maximum limit of legal indebtedness of public-school corporations. Any school corporation may sell bonds for purchasing sites and for building purposes, provided the bonded indebtedness does not exceed the constitutional limit. In Indiana as in other states, there has been a marked increase in bonded indebtedness since 1902, but it is interesting to note that the amount of the bonds issued annually by the schools has been at approximately a fixed level during the past ten years. The issues of 1929 were one million dollars less than those of 1920.

Table I lists the annual amount of school-bond issues in Indiana for the past 27 years.

The table reveals the increase in bonded indebtedness, without consideration, of course, of

TABLE I. Bonded Issues for School Sites, Buildings, and Equipment<sup>2</sup>

Year	Amount	Year	Amount
1902.....	\$ 25,000	1916.....	\$ 1,885,000
1903.....	612,000	1917.....	2,136,000
1904.....	530,000	1918.....	1,318,000
1905.....	332,000	1919.....	2,447,000
1906.....	202,000	1920.....	8,572,000
1907.....	518,000	1921.....	3,596,000
1908.....	408,000	1922.....	6,497,576
1909.....	1,302,000	1923.....	11,139,542
1910.....	1,277,000	1924.....	5,738,359
1911.....	1,064,000	1925.....	3,591,029
1912.....	1,076,000	1926.....	10,045,752
1913.....	1,687,000	1927.....	9,187,452
1914.....	2,563,000	1928.....	5,687,217
1915.....	2,471,000	1929.....	7,572,240

the decreased purchasing power of the dollar. The effect of the constitutional limit during the past ten-year period is distinctly noticeable.

## Caught Between Charybdis and Scylla

In the attempt to meet rising educational standards, the less prosperous communities of the state have found themselves caught between Charybdis and Scylla. To meet the state educational requirements, they have been obliged to support an expensive building program for which they had no legal way of raising money above the 2 per cent constitutional maximum. To meet the situation in various towns, public-spirited men rallied to the cause and needs of education. They devised a plan whereby they might form a "holding company" in their community and build the needed school buildings. The school corporation, in turn, would lease the site, buildings, and equipment, and in time would own the sites, buildings, and equipment and have the full use of such buildings in the meantime.

Several such holding companies were formed as early as 1916. Two cases will be described typical of the organizations:

Community A had completed a high-school building by bonding the city to the maximum constitutional limit. A heating plant was needed, but no money was available. Twenty public-spirited men then formed a company and each subscribed stock to the amount of \$1,000, making the total value of the stock sold \$20,000. A contract was entered into by the company and the school board, under which the school board should pay for and acquire the heating plant as soon as the debt situation permitted. The stockholders in the company were to receive no dividends, beyond 6 per cent interest on their money.

Here was a private company owning a heating plant in a publicly owned high-school building. Had the school board refused to carry out the contract, it is interesting to speculate whether these men could have enforced it, for the Indiana law provides that fixtures are a part of the real estate to which they are attached. It is also interesting to contemplate whether a court would not have held this procedure as an evasion of the law.

In Case B, a gymnasium costing \$90,000 was built by three men who formed a company to finance the building. The building is on school property adjacent to the school building. These men have collected all admissions to the gymnasium, handled all moneys, and dictated the policies for the use of the gymnasium. The school has used the gymnasium freely and helped every effort to help the men recoup themselves. When paid for, the building is to belong to the school. Cordial cooperation has existed.

Other cases of similar nature could be cited. It is sufficient to say that it was in response to

public demand, and in an attempt to legalize the actions of various school boards that the 1927 Holding Company Act was passed.

## Legal Companies Formed

The state legislature passed a law in response to this demand in 1927, which has come to be known as the Holding Companies Act. The first bill was Senate Bill 116, approved March 5, 1927. The title of the act provided for:<sup>3</sup>

"The authorization of an organization of voluntary associations for the purpose of acquiring sites and constructing buildings and installing necessary equipment and appurtenances therein to be used in maintaining and conducting public schools and public high schools in certain school towns, authorized the board of school trustees to purchase and own stock in such association and to issue the bonds of such school cities to pay for certain purchases of such stock, and to levy taxes to pay for certain other purchases of stock, and to rent and lease such sites, buildings, equipment, and appurtenances for school purposes, and to levy taxes to secure funds for the payment of such rentals, and such bonds, and to acquire title to such property, and provided that the property of such association and such corporate stock and such bonds shall be exempt from taxation, providing that said act shall be, and is supplemental to existing laws governing school cities and other corporations in declaring an emergency."

It may be seen from the foregoing that the law provided that a school town might contract with voluntary associations who might acquire sites, construct buildings, and install the necessary equipment and appurtenances to be used in maintaining and conducting public schools. Any school town having a population of not less than 2,000, nor more than 3,000, was authorized to purchase and own stock in such associations and to issue bonds and levy taxes to pay for the stock.

In practice the school corporation through a small board of trustees leased the property, had the use of it, paid the taxes and assessments, and the rentals each year took up a part of the principal and paid the interest on the debt. The law provided that the school city should have the right to vote the stock owned by it in the association.

The law further provided that school buildings to be so erected were to be erected according to plans and specifications approved by the school board, prepared by an architect selected by the board, and in accordance with the state laws governing schoolhouse construction. The school buildings were to be erected under the supervision of the school board.

## Further Laws Passed

The law further provided that the association could pay no dividends in excess of 6 per cent of the value of the stock not owned by the school society. The total cost of the site, building, and appurtenance and equipment for which stock might be issued should not exceed \$125,000.

On March 8, 1927 Senate Bill 236 was passed, which made similar provisions for holding companies for school cities having a population of not less than 6,000, nor more than 7,000. The difference in this bill from the previous one was the amount of capital stock which should not exceed \$125,000. On March 9, 1927, Senate Bill 262 was passed, which sought to make similar provisions for school townships having a population of 900 to 1,000. This act provided that the capital stock was not to exceed \$60,000.

This rapid increase in legislative procedure reveals the tremendous pressure brought to bear for the associations and also the public attitude in the school units of certain sizes upon this question. Many communities took advantage of

<sup>1</sup>Constitution of Indiana, 1851, art. XIII.

<sup>2</sup>Commercial and Financial Chronicle, Vols. 78-128.

<sup>3</sup>Acts of the Indiana Legislature of 1927.

(Continued on Page 127)



# THE AMERICAN School Board Journal

EDITORS:

WM. GEO. BRUCE



WM. C. BRUCE

## The Newer Phases in School-Site Selections

IN every community there was a time when the choice of a school site was a simple matter. An abundance of vacant property, centrally located, and promising as to immediate and future use, was at the command of those who contemplated new school structures. With the growth of the population, the encroachment of commerce and industry upon residence areas, the problem of school sites has become a more exacting one.

The school location that was quite central on yesterday is not so today. The pupil constituency has moved away from the schoolhouse. Longer distances between homes and schools have been established. Business activities have destroyed the quiet and seclusion of the school. Traffic has entered the neighborhood. Noises and distractions are interfering with the operations of popular training.

The site question not only involves the selection of locations in new areas, but the disposition of schoolhouses in old areas as well. It brings into play a consideration of the trend of town growth and development and the location of sites that give promise of a maximum period of service.

There is no question that the innovation of modern traffic, both in volume and method, is a factor to be dealt with in determining upon school sites. Traffic congestion is no longer confined to the downtown business sections, but is found in the arterial highways that run through residential sections. The thoughtful school official is not likely to locate a new schoolhouse on a much-traveled highway and thus expose a pupil constituency to the dangers of the traffic thereon.

There has been a tendency in recent years to anticipate future school growth by acquiring sites in sparsely settled areas long before the actual need for them has arrived. Where a community has been undergoing a steady growth in population, such a procedure can wisely be engaged in. It permits the acquirement of larger sites, and at a lower cost, than could later on be obtained.

A troublesome situation is reached where one high school is to be erected in a community having two residential sections affording at opposite ends equally attractive sites. The sectional rivalry here manifested has led to vexatious delays as well as to some embarrassments.

In weighing the relative merits of site and site, the several factors, namely location, environment, price consideration, and the probabilities of future expansion, usually lead to a sound conclusion. The interested citizenship may not be of one mind on such conclusion, but the school authorities must come to a definite determination.

The school-site question brings into consideration the much-debated subject of executive or closed-door school-board deliberation. And here it must be stated, as this has been done before, that the preliminaries to the selection of a school site not only render executive sessions permissible, but absolutely necessary if the best interests of the school system are to be subserved. Once the story gets out that the school authorities are in the market for a school site in any given neighborhood, the price for same goes up. It is better to clinch a bargain first and then make a noise about it later on.

The premature publicity of the probable choice of a school site has cost some of the school systems a pretty penny. Real estate that has gone begging for the want of a buyer jumps to exorbitant figures the moment that it is noised about that the public authorities expect to purchase the same for school purposes. A timely anticipation of future needs in the way of school sites, and a businesslike approach to the acquirement of the same will always prove the most economical and practical.

## Professionalizing the School Business Managership

IT has become the custom of the public-school systems of this country, having attained sufficient size and importance, to employ a business manager. The expediency and value of securing the services of a trained expert in the conduct of the business affairs of the schools, is well established. The cost of his salary is earned many times over in the economies which he can and does effect.

This estimate of the business manager's job is based upon supposition that it is filled by one who not only possesses a general knowledge of business affairs, but who enters intimately into the exigencies and needs of a school system. The choice of a man to fill the office must contemplate more than a superficial knowledge of business procedure.

In American public life, the charge is frequently ventured that persons are appointed to office because of their influence and popularity rather than because of their character and ability. Again, it is remembered that the public service is not generally being recruited through the merit system.

"The fact often has been stressed, that we have in local administration in America no career of public service as is known in England and on the continent," says *Public Management*, a publication devoted to the public service. "There, such a career, technical, dignified, and responsible, has attracted to it trained and able men, thereby benefiting immensely the public service, and offering to these men opportunity to assume larger responsibilities as they continue to develop their capacities and grow in experience."

"In this country, however, for more than a century we have considered public office as a reward; something to be passed around. The tenure of office must be short we felt. The personnel must be changed often. The victor must have spoils. All this has stifled any attempt at technical administration and hampered the development of administrative abilities. Lord Bryce, Whitlock, Steffins, and others have pointed out the debacles in municipal administration resulting from the spoils system which, until quite recently, prohibited the development of a profession of public administration."

What applies to general municipal government may in a measure, at least, apply to those employed in the business department of a school system. It may be asserted at this point, however, that in the nature of things a school system brings to its staff a higher type of service than is usually secured in municipal departments dominated by political considerations.

In the choice of a school business manager, it has been our observation, that great care is usually exercised in securing the most efficient service. The man so chosen has usually had some executive experience in the commercial or industrial field. There are instances on record where a person was chosen for a business managership who had no particular claim to the position except that he needed a job.

In the main, however, the business personnel of a school system is chosen with a due regard for the task to be performed. The office of the business manager is such that it readily demonstrates its own success or failure. Its operations are reasonably obvious and can be scrutinized and judged in the light of the economy and efficiency to be attained.

## Depleted School Treasuries and the Remedy

WHILE there are many school systems throughout the country that are running on narrow margins between receipts and expenditures, there are also those that are confronted with an actual deficit. Luckily the instances where radical curtailment in the operations of a school system were necessary, are not numerous. The retrenchments have usually resulted in the elimination of certain special studies, a reduction in the teaching force, and sometimes a shortening of the school term.

On the other hand, depleted school treasuries have, as a rule, taken recourse to outside aid. Usually the credit of the school system is sufficiently strong to command the financial aid of local banks to tide over a troublous situation. Only in extreme cases has it been necessary for the citizenship to come to the rescue by way of private subscription.

"We are constantly demanding more and more of our educational



plants and systems, and then grudgingly allow the money with which to make it possible to comply with the constantly added demands," says a western editor. This accounts in part for a shortage in school funds, but it does not tell the whole story. The trouble lies, moreover, in the management of the financial affairs of a school system.

The question of solvency must necessarily be uppermost in the management of any school system. In tracing the causes which have led to embarrassing school-treasury deficits, it is usually found that somebody has failed to act when action was timely and necessary. Sometimes unforeseen circumstances may create an uncomfortable situation, but usually deficits are avoided if those in charge of the finances recognize the importance of keeping a school system in a solvent condition.

The Chicago school system is several millions in the hole. The political control which has been wielded over the board of education of that city, is largely responsible for this state of affairs. A body of men and women serving as a board of education must be reasonably free from interference in realizing policies and projects. Where a mayor or a group of aldermen can lord it over a board of education, inefficiency is bound to follow. Fortunately, no other large city in the United States is quite in the calamitous position in which Chicago finds itself.

The remedy for a depleted school treasury must be found either in a policy of retrenchment, or in an increased income. Sometimes the gap between an empty treasury and the tax return is covered by a temporary loan secured from local banks. That meets the immediate situation but does not solve the problem.

It is therefore wiser to consider precautionary measures against a depleted school treasury than it is to wait until such a dilemma is at hand. A properly prepared budget ahead of time not only contemplates the several expenditures to be engaged in, but estimates to a reasonable degree the available funds. Here great care must be exercised.

An instance of that caution and care which should guide every board of education in estimating income as well as outlay was recently demonstrated at Grand Rapids, Michigan. The board of that city, in preparing its budget last spring, had reason to believe that the amount to be received from the state fund would in all probability be less than it was the year before, and adjusted the proposed outlay accordingly. The Michigan state school fund in the meantime was enlarged through increased tributes paid by inheritances, railroads, utilities and the like, thus giving the Grand Rapids school over \$100,000 more than had been received the year before.

This illustrates that discretion and conservation have their application when it comes to making budgets and handling the finances of a school system. The solvency of the school treasury must at all times be borne in mind if the administration of a school system is to be maintained upon a sound basis.

### Something About Schoolbook Piracy

THE work of an author usually implies originality, research, and literary skill. In recognition of the fact that a service thus performed constitutes a contribution to the cause of civilization, the several countries of the world encourage authorship by distinguishing its products as property which is entitled to the same measure of protection accorded to all other forms of property. Thus the copyrights issued by governments covering books and magazine literature, plots, plays, engravings, become certificates of ownership, established by custom and law, and internationally observed, as well as nationally.

The reputable publisher not only respects the copyright law, but is anxious that the author does not violate the rights of his fellow authors. And yet the invasions upon the rights thus established occur only too frequently, either in the form of outright plagiarism, or some form of altered reproduction.

The violations of the copyright law have manifested themselves in the school field of this country in a somewhat peculiar way. A new book comes off the press. Sample copies go to the school public. Its merits are recognized. The author has produced something which excels all other similar books. But, what happens? Is there an honest purchase of a number of books sufficient to supply the student class? Would anyone attempt to pilfer the contents of the book, or at least pilfer the part of the book that is deemed most valuable? The several questions are answered by submitting the following typical case:

A representative of an educational publishing house recently presented

a copy of a new book to an instructor with a view of securing its adoption in the particular school. The instructor pronounced the book as being wholly unsuited for his class. He explained that he had himself prepared a set of lessons, and hence did not require a textbook of any kind.

When the representative insisted upon seeing the reproduction, he discovered that the text had all been copied verbatim from the very book he had just presented. The instructor had, by means of reproducing devices, produced seventy copies of the main problems of the book, and thus supplied his classes with the latest textbook material. Other instructors in other cities have done the same thing; in fact, it has become the common practice of certain schools.

The instructor may defend his action upon the plea of economy, and at the same time pride himself upon having ingeniously circumvented the author and publisher. And yet the conscientious instructor will interpret such an action as an underhanded theft. If the author, who has spent time, thought, and labor upon his book, is entitled to a royalty, and the publisher, who has invested his capital and energy in its production, is entitled to an earning, then the instructor's "stolen" textbook pages constitute nothing more nor less than an infraction upon property rights.

According to the testimony of publishers' representatives, the practice of pilfering modern textbooks is growing rather than diminishing. While the practice, as already stated, is confined to certain schools only, it is, nevertheless, reprehensible and should be discountenanced wherever it asserts itself. The instructor may not appreciate the fact that the contents of a textbook, as well as the book itself, represent property rights which must be respected. The fact is, that the author is a fellow instructor who is as much entitled to his book royalties as is the instructor to his monthly salary.

The owner of copyright has a remedy at law in that he may secure an injunction restraining infringement, and also sue for damages. The more serious part, however, of the copyright law is found in the criminal statute by which is made a misdemeanor to wilfully infringe upon the work of an author. Such infringement is punishable by imprisonment not exceeding one year, or a fine of not less than \$100, nor more than \$1,000, or both, in the discretion of the court.

The law also includes in an action all persons who have wilfully aided and abetted the offender. Thus, if an instructor is charged with pilfering copyrighted material, those likely to have knowledge of the offense, such as the president of the board of education, the superintendent of schools, the supervisor or principal, may be included in the action. If the violation of the law is carried on with their knowledge and consent they become a party to the misdemeanor.

The authors and publishers, who have been exposed to the purloining textbook contents, have thus far accepted the situation somewhat complacently. But the prediction has been made that the day is not far distant when legal steps will be taken to stop a reprehensible practice, and compel a proper respect for the offerings and the rights of author and publisher.

It is not likely that the school administrator will tolerate unethical conduct on the part of his subordinates in the matter of textbooks any more than he would tolerate such conduct in any other school activity. If a school is to stand for high ideals, then integrity and honor must be exemplified by everyone connected with the same.

### The Era of School-Administration Buildings

THE time will arrive when the larger cities of the United States will provide separate buildings for the housing of the school-administrative service. Several cities are now so provided. The cities of Cleveland, Detroit, and Philadelphia, have such projects in hand.

The desirability of a centrally located, properly arranged structure, in which the administration of a large school system may be carried on with a maximum of expedition and efficiency, cannot be questioned. At present most of the large city school-administrative headquarters are found in office buildings, discarded residences, or in schoolhouses. Some are conveniently accessible, some are not. Many are lodged in a series of offices, wholly unsuited for the administration of school business.

It is obvious, however, that the general public has not as yet become reconciled to the expenditure involved in the construction of a separate school-administration building.



# Sound Amplifying Distributing Installations for Schools

John Ritchie

Loud-speakers in schoolrooms for the broadcasting of educational programs were predicted a few years ago by Frank Irving Cooper in an address before the National Education Association. Like many other advanced ideas, the statement was received with polite smiles. But today, music reproduction and the public-address systems have passed beyond the trial stage, and building committees and superintendents are including them in their schedules of requirements.

The new types of sound projection will have lasting influence on the planning of the schoolhouses of the future, as well as on school programs. The methods of teaching by sound mechanically reproduced, are simple and inexhaustible in their command of educational resources.

Chance has not brought the extraordinary growth of this method of instruction, which has literally forced itself into the everyday school practice. There is no basic difference in value of the ear and the eye in gaining information.

A number of school buildings planned by Frank Irving Cooper are using or putting in sound systems, a notable installation being that in the Somerville, Mass., high school. The accompanying illustration shows the hall, which seats 1,600 pupils, and the stage on which may be seen the attractive organlike mask for the reproducing speaker. This speaker measures nearly 7 feet in width, 8 feet in height and is 4 feet deep. The "pickup" is placed in the balcony and includes a phonograph and radio.

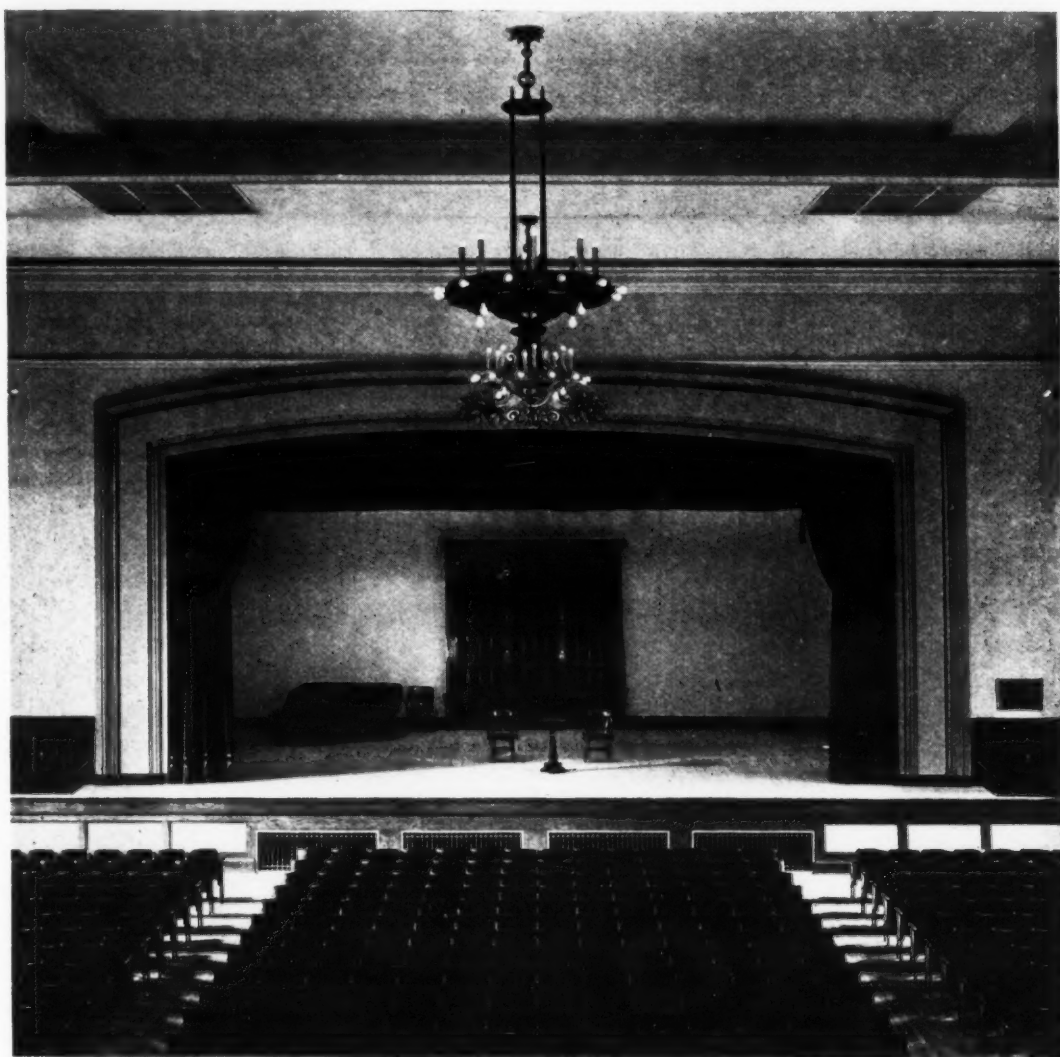
A musical critic recently visited the school and found a concert in progress with an audience of more than 200 pupils. It was the Damrosch hour, and Dr. Damrosch's voice and his orchestral illustrations filled the hall not only with ease, but naturally. The most impressive feature of all, however, was the remarkable way in which this disembodied concert, with the musicians 200 miles away, held the attention of the audience. The pupils kept their eyes on the mask as they would have done on an actual lecturer, and at the close the applause was spontaneous and sincere.

## Essentials of an Address System

It is true that in many fairly essential matters educators have of necessity been conservative in the adoption of interesting and promising novelties, but in the introduction of the newer sound distributing devices, progress by the leading schools has kept pace with what the manufacturers have been prepared to offer.

The public-address system, which involves a central sending station, usually in the office of the superintendent or principal, has a distributing, loud-speaking telephone in every classroom. Some years ago, systems were devised and installed in large railway terminals by which trains were announced when ready to start, or about to enter the station. Since that time important developments, required by the radio and other demands, have resulted in the production of loud-speakers at reasonable cost. This progress has brought the device within the reach of the school, and today there are many installations which are working with complete success.

Outfits of this kind have various uses. The principal of the school, with such a system at hand, may communicate directly with any or all of the classrooms in this school. If desirable, a special school-program number may be given at the same time to all the pupils. An address, that of some distinguished visitor, may be at the service of the whole school without the delays of gathering the students in the assembly



PUBLIC-SPEAKER AND VICTROLA CONCERT  
The instrument is concealed behind the organ-like mask.  
Installation in the Somerville High School, Somerville, Massachusetts

hall. Indeed, in many buildings there is no hall capable of seating all the pupils.

## Bringing Quick Order

A striking example of the service of such a system was presented on the opening day of the North Junior High School in Quincy, Mass. The building was new and on a plan quite different from that of the ordinary schoolhouse in that city, since it provided auditorium, gymnasium, library, science rooms and rooms for other specialties in addition to the regular classrooms.

Of the group of children and teachers, nearly one thousand in number, only the teachers were acquainted with the layout of the building. The teachers took their stations in the different rooms, the doors of which had not been numbered, while the children, having no definite goals, settled themselves in the auditorium or classroom nearest at hand. It seemed inextricable confusion which, under older conditions, would have required a full day to untangle. But the building committee at Quincy had the wisdom to install an address system, and the principal, taking up his telephone, signaled the whole school to attention and said quietly: "Pupils of the seventh grade will go to their rooms at the west end of the first floor." The children knew their grades and directed by the voice of the principal, coming from every speaker, each grade went to the proper rooms. In twenty minutes all were in their rooms ready to proceed with the school program.

On the value of such a system of communication in a large school, there can be no question. In the saving of time it repays its cost over and over again every year. For quick action in get-

ting information to the school-body it is unexcelled, and in cases of emergency readily proves its worth. A march tune will pass the pupils between class periods much more quickly and with improved order, and will send the children to their next classes rested and alert. Properly handled and with the good condition of maintenance that lines of communication must have, it is a little difficult to suggest disadvantages. The first cost is somewhat expensive it is true, but so is everything in equipment that must be furnished in quantity, but the cost is really a minor matter when worth is considered.

## Auditorium and Classroom Programs

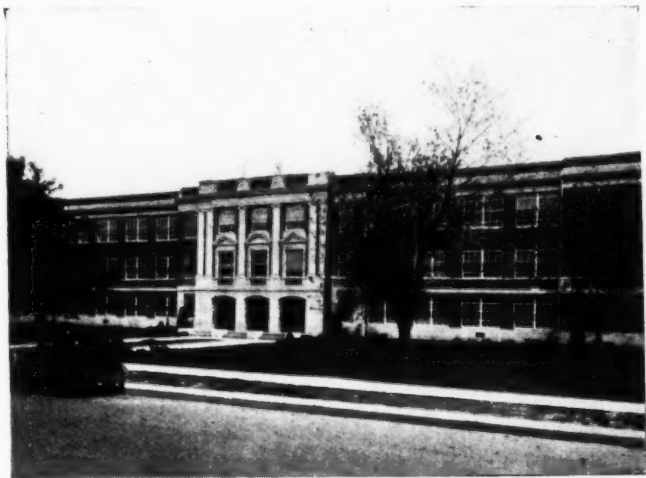
It goes without saying that not only may information from headquarters be distributed by the system, but lectures, discussions, and other vocal items in the school program may be given regularly from the central station in the office of the principal and from radio connection.

An important use of a system of this kind is in connection with the auditorium reproducing horn, which in the up-to-date schools has great possibilities. In schoolwork, lectures from records may be given to large companies in the hall, and music is only one of the subjects which provide opportunity to the teacher to instruct. Repetitions are easy, so that especial emphasis may be thrown on any detail. The auditorium horn and the mechanism leading up to the amplification of tone may be connected with the address system, and classes in their individual rooms may have the benefit of any work which is going on in the auditorium.

Much has been done in the past few years to

(Concluded on Page 70)





## FOR THE FUTURE COOKS OF AMERICA

# floors that laugh at spilled things!

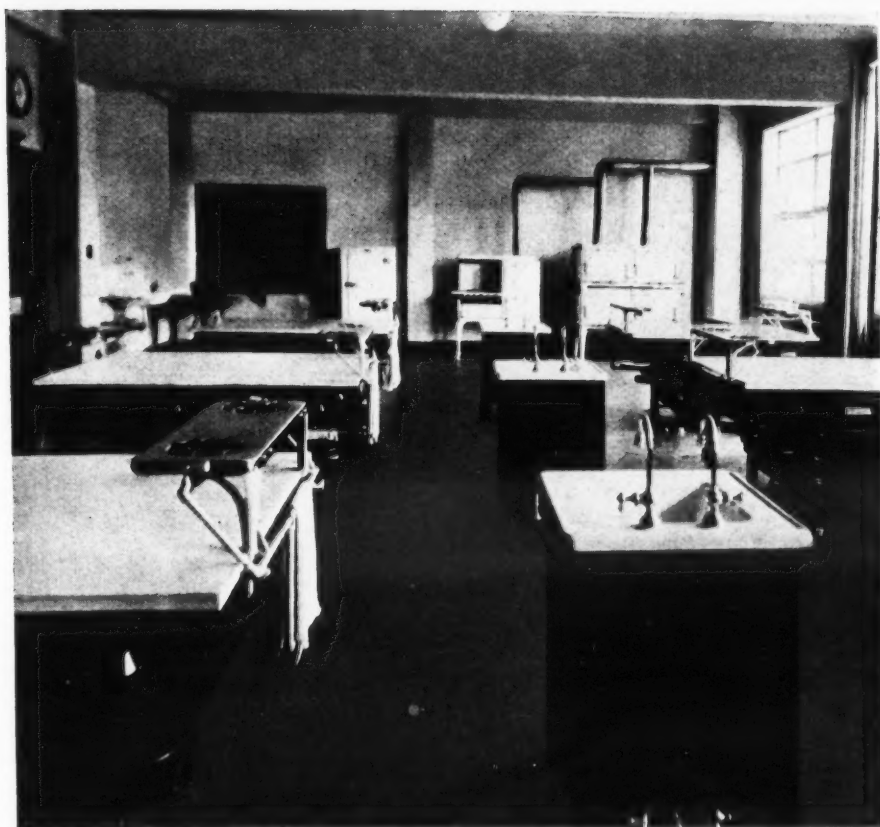
**Y**OUNG women learn a lot of things about cooking in a well-conducted Domestic Science Course—and they get some valuable pointers on kitchen floors in this well-equipped, modern class-room.

They learn, for example, that linoleum floors are quiet, comfortable and pleasant to work on—and discover in short order that there's one kind of linoleum that is proof against kitchen "accidents"!

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It really doesn't matter what is spilled on a *Sealex* floor. Hot grease, fruit juices, ink, are wiped up with a damp cloth without a trace of damage. Dirt won't grind into *Sealex* floors, either. They keep their good looks—do not become grimy. For ordinary cleaning, a light mopping or sweeping suffices. No scrubbing or scouring or powerful, expensive cleaning agents! No painting, varnishing or refinishing!

This easy cleanliness—this immunity to accidents—is only one of the reasons why *Sealex* floors have been installed in schools, colleges and universities all over the country. Sound-absorbing, shock-absorbing—these resilient, cork-composition floorings make class-rooms, corridors, libraries, dining rooms, offices, etc., quiet and comfortable. And the inherent durability and beauty of *Sealex* materials assure economy and fine appearance wherever they are installed.



*Sealex* Battleship Linoleum installed in domestic science class-room of Wellington High School, Wellington, Kansas. Architects: Schmidt, Boucher & Overend; General Contractors: Blazer-Volmer Construction Co.; Bonded Floors Contractor: O. McCormick Rug Co., Topeka, Kansas.

**L**ET us send you our booklet, "Facts You Should Know About Resilient Floors for Schools." Or, if you wish, we'll send a specialist on resilient floors to give you information, samples and prices. Address Department S.

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## A Principal Lost

### Because He Has Left His Office



time of the day or night, plus a ready means of locating the party when not at his desk. No operator is required, the system is automatic in operation and always on duty ready to give rapid, reliable and secret service. The latest dial type telephones are used. Scores of schools in all parts of the country are equipped with the North "All-Relay" Telephone System.

"All-Relay" guarantees Ease of Installation, Simplicity of Operation, Uninterrupted Service, and Freedom from Maintenance.



**NORTH**  
Automatic Telephone  
**SYSTEM**



*Write for catalog giving descriptive details of the North "All-Relay" Telephone Systems.*

**THE NORTH ELECTRIC MANUFACTURING CO.**  
GALION, OHIO  
Established 1884

(Concluded from Page 68)

make of the assembly hall or auditorium a meeting place for community gatherings, for educational, musical, or social purposes. For such audiences the reproducing horn has its obvious advantages, and records of highest quality may supplement the renderings of a local group of musicians, the speaker of the evening, or, if desired, records may furnish the entire program, either for a concert or a dance.

It is clear that it would be out of the question to have such an installation and not take advantage of the radio, and the reproducing mechanism is fitted to catch desired items from broadcast programs. Such delightful explanations as those of Dr. Damrosch and Dr. Stock, address of famous travelers, and even of the President of the United States are available, while for school purposes there will shortly be programs broadcast under the direction of the U. S. Commissioner of Education.

#### What a System Includes

Since many superintendents have already asked concerning what is required for an installation for the public-address system or for auditorium music reproduction, it may be of value to say that what is included in the modern systems furnished by the Western Electric Co., is satisfactory, and is here listed:

- 1-41-A amplifier
- 1-42-A amplifier
- 1-43 amplifier
- 1-D 88180 terminal panel
- Vacuum tubes
- 1-201-A reproducer
- 1-Tungar rectifier, 5 amp.
- 1-15-C horn
- 4-555 W receivers
- 1-D 87269 repeating coils
- 2-3 LXL-9 storage batteries
- 1-CS 3049558 rectifier
- 1-101-B relay rack
- Loud-speaker cones for each schoolroom

#### a) For Radio add to above

- 1-1002 F head set
- 1-D 86878 control cabinet
- 1-4 D radio set
- 1-2B tuning unit
- 6-215 A vacuum tubes
- 1-485 B battery
- 1-Resistance unit

#### b) For Announcements add to above

- 1-1241 CJ desk stand

For Pickup of programs in auditorium, in addition to music reproducer system, add the following:

- 1-41 A amplifier
- 3-239 A vacuum tubes
- 1-207 A panel
- 1-387 W transmitter
- 1-5B auto transformer
- 1-1105 B transmitter mounting

It should be understood that the wiring must be so protected as to prevent induction, using 2-wire lead-covered cables leading to a control

room, to which all wires lead and a distribution system from a central switchboard.

In conclusion, it may be of interest to note that the music reproduction device in the Somerville high school, mentioned in the foregoing, was not installed until after the architect had tried out a number of music reproduction devices. In his studio at Wayland, Massachusetts, Mr. Frank Irving Cooper has a small hall which has been the laboratory for many experiments working toward the betterment of construction and equipment for school buildings. Here he has installed at various times music reproducers. The devices used in such schools as the junior high schools in Everett and Arlington, Massachusetts, and in the Somerville high school, have been tested until considered satisfactory for installation.

## Oakland School Organization Plan

An interesting document has just been issued in Oakland, Calif., which describes the plan of organization upon which the schools of that city are governed.

A series of charts are introduced. These not only provide a complete outline of the general plan of the school government, but also show the relation which the superintendent bears to the several professional activities. The accompanying text describes in detail the nature of these activities.

#### The School Superintendent's Job

The superintendent of schools is designated as "the chief executive officer of the board of education, and as such is especially charged with the enforcement of the rules and regulations of the board. He nominates for election by the board all principals, supervisors, and

teachers, and has general supervision and control of them. He assigns teachers to their positions, and has the power to fill vacancies temporarily with substitute teachers. He formulates and presents an annual budget, makes recommendations concerning housing and equipment, books and supplies, and prepares and submits for approval of the board the program of studies. He visits the schools as often as other duties permit, thus keeping personally acquainted with the administration and supervision of the entire school system. He executes all decisions of the board, and in all cases where action is necessary during recess of the board, he makes necessary decisions subject to the approval of the board of education. He is responsible for the general administration and supervision of the entire school system,

(Concluded on Page 72)



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TRADE MARK REG. U. S. PAT. OFF.  
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Varnish and Wax must go!



Science has discovered the way to COMBINE varnish, gums and waxes. In the product of this combination—CAR-NA-VAR—all of the virtues of

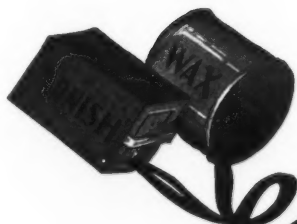
varnish and wax are preserved.

For CAR-NA-VAR has the brilliant varnish-like finish and long wearing life. It is as pliable as wax. Yet CAR-NA-VAR will not check, scratch, or show furniture mars as does varnish—nor is it slippery as is the case with wax.

In CAR-NA-VAR you will find the ideal floor filler, preservative and finish combined in one . . . easy to apply . . . easy to clean . . . and economical to use. Sales Service Branches from Coast to Coast. Write the main office and the CAR-NA-VAR man will gladly demonstrate.

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**COLORS:**  
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The Abraham Lincoln High School, Rockford, Ill. Architect: Peterson and Johnson. Contractors: Holmquist Peterson Company

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"Fenmark" Windows for Schools

## BEFORE . . . you select the windows for your new school building

SEE the new Fenestra School Window.

SEE how its narrow bars and large panes of glass will flood each room with daylight.

SEE how its ventilators safely, easily, admit fresh air, yet close snug tight against stormy weather.

SEE how it adds to the architectural beauty of the building.

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HOW? In your locality there is a Fenestra Office—Fenestra organizations are located in all principal cities—where school architects, school officials, can see this new school window on display. Or Fenestra Engineers will arrange for a demonstration. You can inspect Fenestra types, study the details—and obtain literature—without obligation.

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Factories: Detroit, Michigan and Oakland, California

(Concluded from Page 70)

and for giving to the public all important information concerning the schools.

### Duties of Business Manager

The business manager is in control of the following seven departments: (1) Accounting and payroll; (2) purchasing; (3) stores and delivery; (4) maintenance, repairs, and outlays; (5) new buildings and sites; (6) operations—custodian service; (7) recreational and civic use of school plants.

In addition to these duties, he is in charge of (1) the appointment, transfer, promotion, lay-off, and discharge of nonpedagogical employees, (2) handling of permits for the civic

use of school buildings and grounds, (3) working out of all insurance schedules, (4) supervision of telephone equipment, etc.

The accounting department is in charge of a so-called auditor who is also the secretary of the board of education. His duties are definitely outlined.

The board of education consists of George W. Hatch, president, Mrs. F. L. Burckhalter, vice-president, John J. Allen, Jr., J. F. Chandler, F. N. Kornhaus, Mrs. P. J. Kramer, and Eugene K. Sturgis, ex officio. Lewis B. Avery is the superintendent, Donald B. Rice, the business manager, and John W. Edgemond, auditor and secretary.

## The Administration of Basketball in a Small High School

Principal J. L. Oppelt

It is not uncommon that the principal of a small high school has direct control of athletics. In the majority of cases this is, no doubt, satisfactory. The management of athletics, however, entails an endless amount of labor and responsibility. The performance of most of the details attendant upon the administration of athletics can be delegated to others. The following plan is in use in Avon Lake High School, Avon Lake, Ohio.

Basketball is administered by an athletic board of control, consisting of four faculty members and three student members. The faculty members are the boys' coach, the girls' coach, the director of recreation, and the sponsor of girls. The student members are the boys' captain, the girls' captain, and the student manager. The principal is a member ex officio. The balance of power lies with the faculty. The officers of the board and their respective duties are as follows:

A. The President (boys' coach) calls and presides at all meeting.

B. The Secretary (girls' sponsor) (1) keeps a record of all proceedings of the meetings. (2) She keeps an accurate record of the playing time of all players. (3) She makes out the annual eligibility blank for the state commissioner of education. (4) She makes out weekly eligibility blanks to contesting teams. (Each blank is placed on the desk of the principal for signature on the Tuesday prior to a game.)

C. The Treasurer (director of noon-recreation) (1) handles all receipts and expenditures in connection with athletics. (2) He is responsible for sending tickets to visiting teams, and for appointing students to assist with admissions. (3) He keeps an accurate record of all financial transactions. (4) He accommodates and pays all officials.

D. The Student Manager (1) arranges trans-

portation of teams; (2) handles all advertising; (3) has charge of, and is responsible for, all athletic equipment; (4) receives and accommodates visiting teams; (5) keeps time at all games.

The board determines all athletic policies. The following data are embodied in a certificate of eligibility.

### Eligibility Card

This is to certify that . . . . . has a passing average in my class from the beginning of the current school year up to and including the date indicated. Here follow blank spaces for the date, the names of subjects, and for the signatures of teachers.

Each player has a card and each card is sufficient for the season. The cards are distributed to the players by the athletic-board secretary each Monday morning. Players are responsible for securing the signature of their several instructors and for returning the cards to the secretary at, or before, the close of school on Monday.

The board provides lunch for home and visiting teams following each home game, and holds a banquet at the close of the basketball season. All expenses for these meals are met by public reservations.

The board makes all athletic honor awards in accordance with the following standards:

1. Players must have played in at least as many full quarters (part quarters do not count) as there were scheduled games. (For example, a 12-game schedule would require 12 full quarters as a minimum).

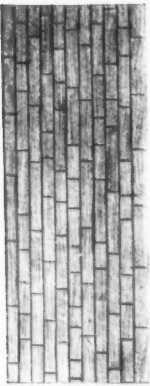
2. Players must have played in at least three fourths of the games.

3. In addition to fulfilling the time requirements, a player must have been approved by a majority vote of the athletic board.

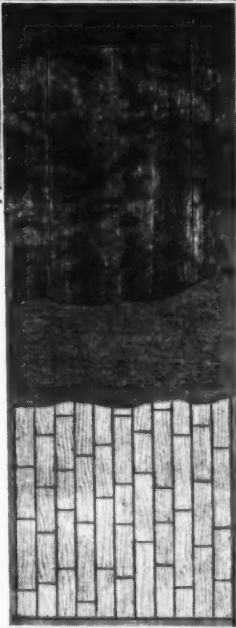
4. The official A. L. — M. shall be awarded

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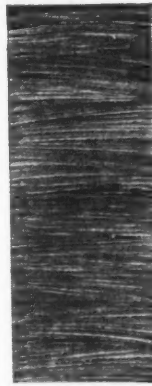




Roddis construction consists of— 1— A core of softwood blocks cement glued into one unit under hydraulic pressure, and thoroughly dried. 2— A  $\frac{3}{4}$ " hardwood edgestrip completely around the core: top, bottom and both side edges. 3— A  $\frac{1}{16}$ " hardwood cross-



band veneer on both sides, glued to core and thoroughly dried. 4— A  $\frac{1}{16}$ " hardwood surface veneer on both sides cemented over cross-band veneer under hydraulic pressure, and thoroughly dried: a 5-ply completely solid, everlastingly enduring door.



## The Most Scientifically Correct School Door

The pictures and descriptions given here reveal clearly, and convincingly we believe, the greater enduring value in Roddis Flush Doors.

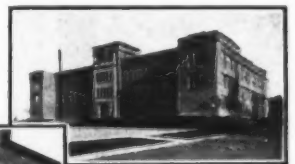
Roddis detail of construction and thoroughness of manufacture are an engineering exactness, from the log to the delivered door.

And the beauty expressed in the finished door shown completes the proof that Roddis Flush Doors are most preferable and practical.

Write now for the Roddis Catalog: replete with door pictures and schools equipped with Roddis Flush Doors; giving other door data worth having.



Group Of Michigan School Buildings, Equipped With Roddis Flush Doors.



Henry H. Turner & Victor E. Thebaud, Architects  
For All Of These School Buildings

### RODDIS LUMBER & VENEER COMPANY

125 FOURTH STREET

MARSHFIELD, WISCONSIN

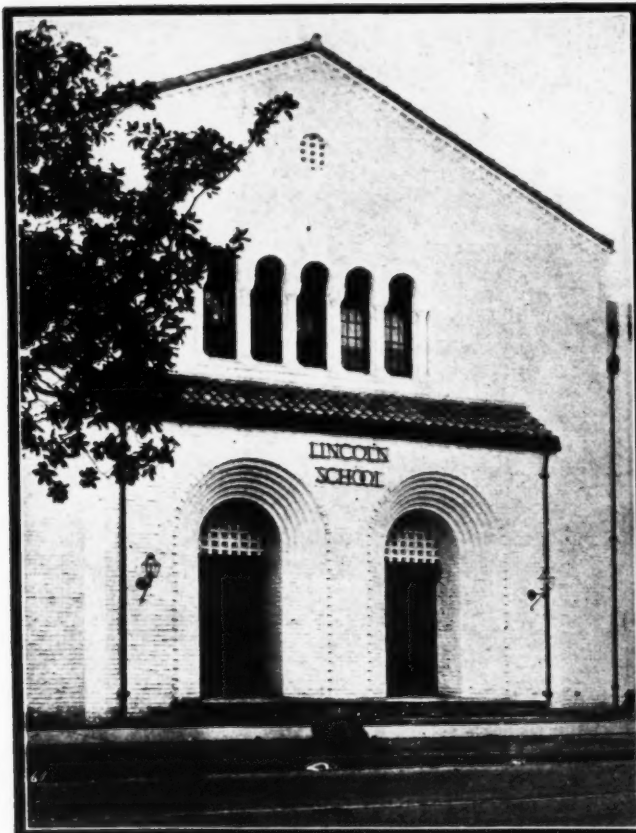
ESTABLISHED 1890

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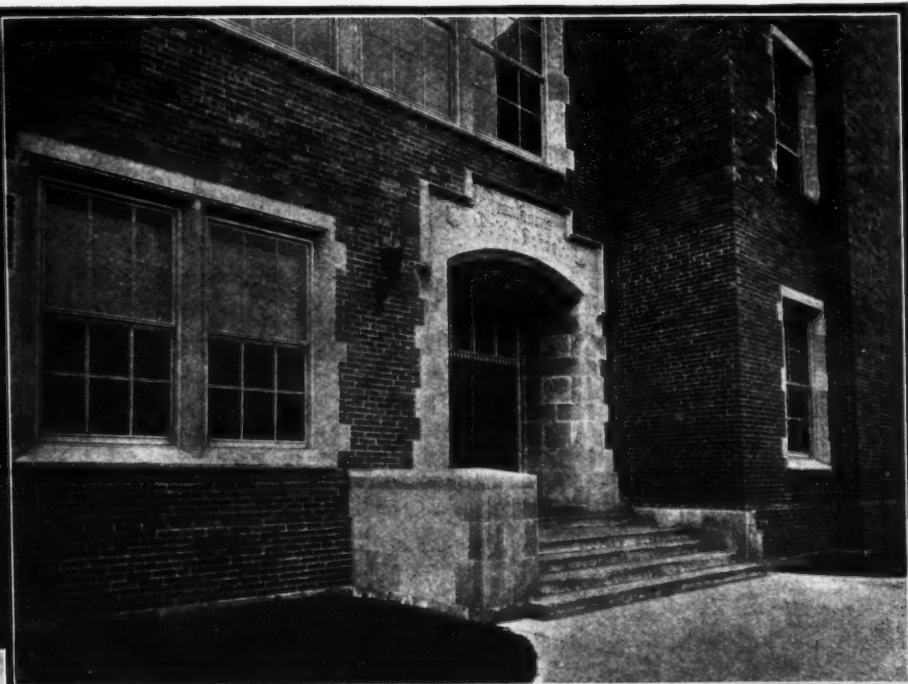


# SCHOOLS.....

## Are Turning To COMMON BRICK



*Lincoln Elementary &  
Junior High School,  
Sacramento, Calif.  
Dean & Dean,  
Architects.*



*Hawthorne Public School, Canonsburg, Pa.  
George W. Brugger, Architect.*



*San Mateo School,  
San Mateo, Calif.  
Norberg & Norberg,  
Architects.*

THE ascendancy in the number of common brick schools is a result of the trend of modern building. Nothing short of fire resisting construction is acceptable and common brick is the indicated choice. Increasingly efficient in design, schools of common brick are durable monuments to civic pride. And because schools are built to last many years, they should be pleasing to the eye as well as efficient. Increasing enrollment demands efficient construction. Common brick, because of its fire resisting qualities, long life and minimum upkeep, is the preferred material.

Complete information on brick or brickwork will gladly be furnished from this office or any district office or manufacturer.

# BRICK

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This bronze is placed in the wall of all brick houses that pass an Association inspection. It is a certificate of sound materials.



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of America**

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District Association Offices and Brick Manufacturers Everywhere at Your Service



# California Students



High School, Lodi, California

The Swimming Pool at this High School is Sterilized by a W &amp; T Chlorinator

## Swim in Drinking Water

In California — where practically all of the modern high schools are equipped with swimming pools — chlorination has the highest endorsement by school boards and health officials. In school pools subject to heavy bathing loads it is imperative that the steriliz-

ing agent have positive continuous disinfecting action in the pool water itself.

Chlorination has an active residual sterilizing effect in the pool water, the intensity of which can be readily adjusted by using W & T chlorinating equipment to meet any bathing load.

### WALLACE & TIERNAN CO., Inc.

Manufacturers of Chlorine Control Apparatus

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WALLACE & TIERNAN, LTD., TORONTO, CANADA

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SP-7a

(Concluded from Page 72)

to one pupil annually, who has faithfully performed the duties of student manager.

Under rule 3, any pupil, who is under penalty of discipline, or whose character or conduct is such as to reflect discredit on the school, shall not be awarded a letter.

In all its policies and deliberations the board functions in accordance with the constitution of the state high-school athletic association.

The plan has proved very satisfactory. The principal signs all requisitions and reserves the right of veto, but so far it has not been necessary to exercise this right.

## WASHINGTON CORRESPONDENCE

By A. C. Monahan, Formerly U. S. Bureau of Education

### NATIONAL RADIO HOOK-UP FOR SCHOOLS

A network of 33 radio stations has agreed to produce school programs in fundamental school subjects on Tuesday and Thursday afternoons during the months of March, April, May, and June. The broadcasting will be under the direction of a national committee and will be handled through the courtesy and with the assistance of the Columbia Broadcasting System. It is estimated that the program will reach 5,000,000 children. The Grigsby-Grunou Company has offered to lend sets of apparatus for receiving these programs to any accredited school. The broadcasts have been planned by 75 leading authorities on education. It is expected that superintendents will be able to evaluate and criticize the program, and to provide suggestive information to the Federal Advisory Committee on Radio.

### Chemical Laboratories

"The Construction and Equipment of Chemical Laboratories" is the title of a report of the National

Research Council, just printed and made ready for distribution. It is the work of a committee of five outstanding chemistry instructors in college and schoolwork, who have spent three years collecting the material for it. The report is sponsored by the United States Academy of Science, of which the National Research Council is a part, and is printed by the Chemical Foundation of New York, from which copies may be obtained.

Superintendents and school boards will be interested primarily in the sections devoted to high-school chemistry, and laboratories, demonstration rooms, supply rooms, etc. This includes information both for large and small high schools. It discusses also the single laboratory for all science work, which is so often the necessity of a small school. This chapter was prepared by Dr. L. W. Mattern, head of the chemistry department of McKinley High School, of Washington, D. C.

### School Specimens of American Woods

In response to a demand from schools and colleges for typical specimens of the commercial woods of the United States, the National Lumber Manufacturer's Association has prepared a set, containing finished blocks typical in grain and texture, of 40 different species of woods. These sets will be distributed to institutions that are likely to make the best educational use of them, at cost of production.

The block sets are packed in a handy-size, slide-cover wooden box, 10 inches long, 7 inches wide, and 6 inches deep, that may be kept on a school desk, table, or in a specimen cabinet. Each block is 2½ by ¾ by 5 inches, and is cut so that the color and graining of the wood, and where possible, the cell structure, can be shown to best advantage. Each is labeled with a legend identifying the species, telling the approximate amount of such lumber produced annually, the native region of growth, the particular and peculiar qualities of the species, and the varied uses to which it is usually put.

### Interstate Building Service

The Interstate Building Service, with headquarters at Peabody College, Nashville, Tennessee, has

proved very helpful to the school authorities in the states which have called upon it for help in the few years that it has been in existence.

Its purpose is to furnish school authorities through their own state departments of education with standard plans and specifications for smaller school buildings. The specifications were prepared in Washington, D. C., by the National Lumber Manufacturers Association. They do not include floor plans and elevations. These are left to the states themselves, for selection from various sources where such plans are available, or for preparations of originals as they see fit. The specifications cover the building and construction details. They are extensive enough to permit a selection to meet the floor plans and elevations chosen, and to meet the type of construction possible with the funds available for the building. They are intended primarily for frame buildings for rural schools of from one to four rooms.

The standard plans and specifications are now used extensively in ten southern states. The Service was established by representatives of the state departments of education in these states. It was done to save them the cost of maintaining an expensive architectural service in each of them. By this plan, Oklahoma, for instance, with a state supervisor of school buildings, with the assistance of a single stenographer-secretary, provided the entire personnel of a department which plans and supervises the construction of approximately 250 rural-school buildings a year. The ten states that use these plans are: Alabama, Arkansas, Florida, Georgia, Mississippi, North Carolina, Oklahoma, Tennessee, Texas, and Virginia.

### Acoustics of School Assembly Halls

The municipal architect, A. L. Harris, of the District of Columbia, has been experimenting in improving the acoustics in various school assembly halls, in the public schools of the District that have been particularly bad. This has been done at the request of the board of education. Mr. Harris has now reported to the board that he has been successful in his experiments. The board is now con-

(Concluded on Page 78)



**Minneapolis**  
Junior and Senior High Schools

Are as enthusiastic, today, over Dudley Lock service as when they made their first installation. Each succeeding year has proved the value of their decision.

The Dudley Combination Padlock with its unique features of safety, convenience, and economy commends itself to every progressive school executive.

Send today for your sample Dudley Combination Padlock for free examination, and details of our easy self-financing plan.

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All Junior and Senior High Schools  
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They have found by actual continuous experience that this lock does everything claimed for it—giving positive locker security and protection for student and school property at minimum cost.

You, too, can get the superior advantages of the Dudley system. Why deprive yourself and the school of the best?

Send today for sample Dudley Combination Padlock for free examination, and details of our easy self-financing plan.

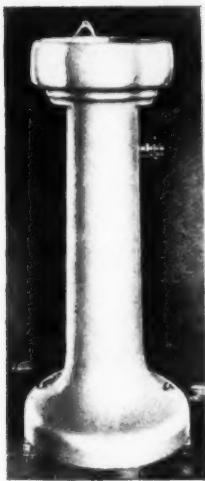
**Dudley Lock Corporation**  
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(1) Maria Sanford Junior (2) Cleveland (3) Murray Junior (4) Roosevelt (5) WoodrowWilson (6) Humboldt (7) Central (8) Washington (9) Mechanic Arts (10) Murray (11) Maria Sanford Senior.

(1) Maria Sanford Junior (2) Cleveland (3) Murray Junior (4) Roosevelt (5) WoodrowWilson (6) Humboldt (7) Central (8) Washington (9) Mechanic Arts (10) Murray (11) Maria Sanford Senior.

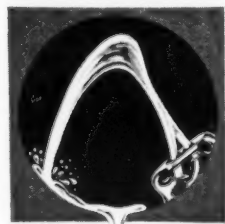


Emporia High School, Emporia, Kansas (J. H. Felt & Co., Architects.)



Drinking Stream Always Practical

Automatic stream control, two-stream projector—distinguishing features that make Halsey Taylor Fountains outstanding in promoting sanitation and convenience.



Two-Stream Projector Practical Automatic Stream Control

## HALSEY TAYLOR DRINKING FOUNTAINS

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HALSEY TAYLOR Drinking Fountains are practical and health-safe, yet they sacrifice nothing from the viewpoint of beauty of design. Made in scores of styles and models—pedestal, wall, battery or recess—with or without glass fillers—a line varied enough to offer widest choice in harmonizing with particular interior treatments.

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See Sweet's Architectural Catalog—  
14 Pages of Specifications

(Concluded from Page 75)

sidering the cost of carrying out in a number of assembly halls, the results of Mr. Harris' experiment, as these halls are now practically useless for assembly or entertainment because of their acoustic condition.

Architect Harris has tried several plans, but the one he is recommending is the use of a special "acoustic plaster." This is a soft plaster and is left with a rough finish. Its use in an old building requires that part of the old plaster be removed to apply the new acoustic plaster. In the seemingly successful experiments, panels of the special plaster were laid in the side walls, the rear walls, and the ceiling.

### Updegraff Appointed Assistant Director, National Advisory Committee on Education

Dr. Harlan Updegraff, well known in educational work throughout the country, has just assumed the duties of assistant director of the studies to be made by the National Advisory Committee on Education. Dr. Henry Suzzallo is director, as previously announced. This committee, composed of 51 prominent educators from all parts of the United States and representing all sorts of educational interests, is undertaking, for the Secretary of the Interior, a study of the proper functions of the Federal Government in education. It is the outgrowth of the agitation during the past ten years for a federal department of education. It is attempting to harmonize the various proposals for federal activities in assisting education and find out, if possible, what seems to be the part that the government should play.

Dr. Updegraff, after several years of teaching experience, served five years as a specialist in the U. S. Bureau of Education. Later, he was professor of education in Northwestern University and the University of Pennsylvania, going from there to Iowa, where he served as president of Cornell College. For the past year he has been director of the survey of the educational system of New Jersey.

### SCHOOL LAW

#### Schools and School Districts

A vote at an election on the dissolution of a district, cast by a farmhand, who returned after the election to another district wherein he had voted at the primaries, is held illegal. — Willis v. Consoli-

dated Independent School Dist. of Cromwell, Union, and Adams Counties, 277 Northwestern reporter 532, Iowa.

A vote cast at an election by one who secured a room in the district eighteen days before the election, and returned to his former residence after the election, is held illegal. — Willis v. Consolidated Independent School Dist. of Cromwell, Union, and Adams Counties, 227 Northwestern reporter 532, Iowa.

A vote cast at an election by one who slept in another district and did not stay on the farm in another district, is held illegal. — Willis v. Consolidated Independent School Dist. of Cromwell, Union, and Adams Counties, 227 Northwestern reporter 532, Iowa.

A county superintendent had power to issue ballots to absent voters in an election to vote on the dissolution of a consolidated school district (code of 1927, §§927-929, 4154 et seq.). — Willis v. Consolidated Independent School Dist. of Cromwell, Union, and Adams Counties, 227 Northwestern reporter 532, Iowa.

#### School-District Government

School boards are public corporations whose functions are performed solely for public benefit (La. act No. 100 of 1922, §17; La. constitution of 1921, art. 12, §10). — Bank of Winnfield v. Brumfield, 124 Southern reporter 628, La. App.

The state, in a taxpayer's action against the members of the school board, on proving the illegality of claims paid by the defendants, was entitled as a matter of law to recover double the amount thereof against the members jointly (Okla. complete statutes of 1921, §§10383, 10384). — State v. Randolph, 281 Pacific reporter 956, Okla.

A claim allowed by a school board for groceries purchased for a club picnic was illegal and subjected the members to a penalty (Okla. complete statutes of 1921, §§10383, 10384). — State v. Randolph, 281 Pacific reporter 956, Okla.

Claims allowed by a school board for traveling and other expenses incurred in behalf of a school club were illegal (Okla. complete statutes of 1921, §§10383, 10384). — State v. Randolph, 281 Pacific reporter 956, Okla.

A claim against a school district for the purchase of library books, to the extent that it exceeded an

estimate of the excise board, was void (Okla. complete statutes of 1921, §§8638, 10383, 10384). — State v. Randolph, 281 Pacific reporter 956, Okla.

#### School-District Property

A school board has a certain amount of discretion in determining whether buildings are in fit condition for use. — State ex rel. Miller v. Board of Education of Consolidated School Dist. 1 of Holt County, 21 Southwestern reporter (2d) 645, cause transferred from the Supreme Court 18 Southwestern reporter (2d), 26, Mo. App.

A school board is held within its rights in exercising its discretion to open a grade school in the central high-school building of a consolidated district. — State ex rel. Miller v. Board of Education of Consolidated School Dist. 1 of Holt County, 21 Southwestern reporter (2d), 26, Mo. App.

A school board was not required to open certain grade schools, where it was shown in advance that less than ten pupils would attend each of such schools (revised statutes of 1919, §11260). — State ex rel. Miller v. Board of Education of Consolidated School Dist. 1 of Holt County, 21 Southwestern reporter (2d), 645, cause transferred from the Supreme Court 18 Southwestern reporter (2d), 26, Mo. App.

A contract allowing architects a 6 per cent commission, is held not to be a waste of public funds, although others could have been employed for 4 per cent. — State v. Brown, 21 Southwestern reporter (2d), 721, Tenn.

A contract for a site of a school building and for architects' services could not be submitted to competitive bidding. — State v. Brown, 21 Southwestern reporter (2d), 721, Tenn.

#### School-District Taxation

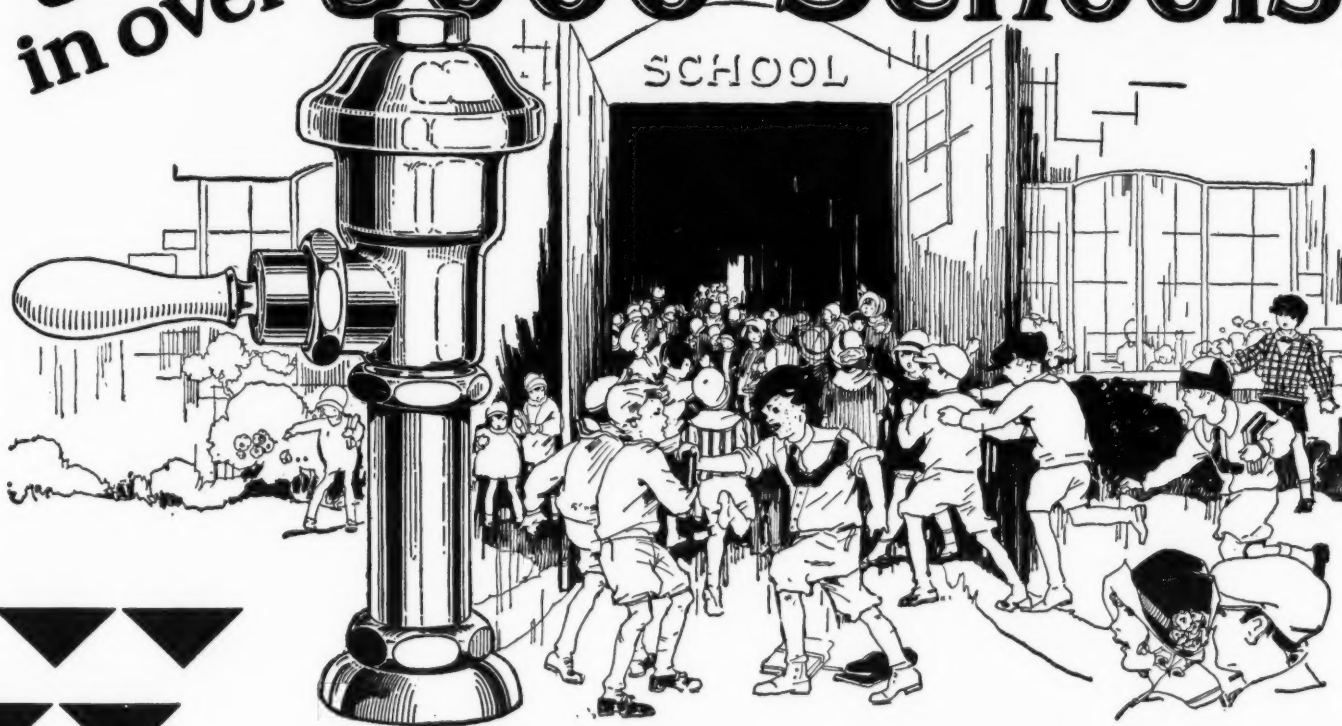
School boards are public corporations whose functions are performed solely for public benefit, and funds which boards possess, administer, and disburse are public funds, dedicated to a specific purpose (La. act. No. 100 of 1922, §17; La. constitution of 1921, art. 12, §10). — Bank of Winnfield v. Brumfield, 124 Southern reporter 628, La. App.

Funds set aside by school boards for teachers' salaries cannot be diverted for other purposes, ex-

(Concluded on Page 80)



Used in over **5000 Schools**



for unfailing service

### A Few of the Five Thousand

Washington District Schools  
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A. L. Harris, *Architect*

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J. M. Colley, *Architect*

Blenheim Grade School  
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Charles A. Smith, *Architect*

Byram High School  
Greenwich, Conn.  
Coffin & Coffin, *Architects*

William Hatch School  
Oak Park, Ill.  
Childs & Smith, *Architects*

Overbrook High School  
Philadelphia, Pa.  
Irwin T. Catharine, *Architect*

Boys' High School  
Atlanta, Ga.  
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Under the thoughtless abuse of care-free school children, Royal Flush Valves take their punishment—and come back for more. Twenty years, and thousands of school installations, tell the story of unfailing service.

School children cannot wilfully

put a Royal Flush Valve out of order. It cannot be held open to waste water—nor operated to deliver an insufficient amount. Made in models to suit every requirement, Royal Flush Valves are the national preference for schools.

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For installations requiring a seat operating valve, the Royal Seat Operated Flush Valve furnishes positive, automatic, tamper-proof service. No childish forgetfulness can cause an unsanitary condition. The seat operated Royal never forgets.



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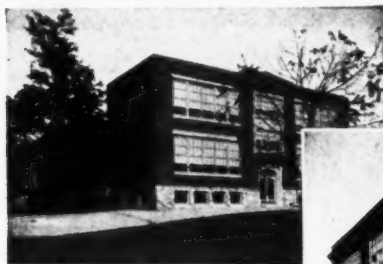
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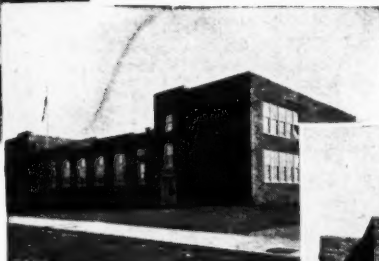
Whitpain Township Consolidated High and Grade School, Montgomery Co., Pa.



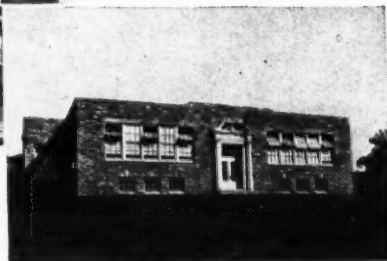
Black Horse Grade School, School District of Plymouth Twp., Montgomery Co., Pa.



Forest Avenue Grade School, Ambler, Pa.



York Avenue Grade School, Lansdale, Pa.



Spring Mill School Annex, Montgomery Co., Pa.

# WILLIAMS EQUIPPED WINDOWS

In These Five Schools  
By One Architect

**T**HESE five schools planned and supervised by Watson K. Phillips, Philadelphia architect, are a few of the school buildings in which he has specified Williams Reversible Windows, during the past 15 years. The installation of Williams equipped windows in these schools insures low cleaning costs, and permits easily controlled classroom ventilation—eliminating any danger of drafts. The reversible feature of Williams Equipped Windows allows all cleaning to be done from the *inside*. In addition, either sash may be tilted to any desired angle to provide a wide range of draftless ventilation. Write for catalog.

For 26 Years Manufacturers and Installers of Reversible Window Equipment

The Williams Pivot Sash Company  
East 37th St. at Perkins Ave., Cleveland, Ohio

**WILLIAMS REVERSIBLE  
WINDOW EQUIPMENT**

*Clean Your Windows from the Inside*

(Concluded from Page 78)

cept by and with the sanction of the school boards themselves. — Bank of Winnfield v. Brumfield, 124 Southern reporter 628, La. App.

In a taxpayers' suit to restrain the expenditure of funds for building a school building, averments as to architects' and building-site contracts are held not to justify the interference of equity. — State v. Brown, 21 Southwestern reporter (2d), 721, Tenn.

A county court's exercise of the board of education's power in controlling the construction of a school building must increase the taxation to justify a taxpayers' suit for injunctive relief (Tenn. public acts of 1911, c. 60) — State v. Brown, 21 Southwestern reporter, (2d), 821, Tenn.

The taxpayers could not restrain a county court from proceeding with the construction of a school building without a demand on the board of education. — State v. Brown, 21 Southwestern reporter, (2d), 721, Tenn.

#### Teachers

A teacher, prevented from performing a contract on the ground that she induced a school-board president to sign it by lying and deceit, could sue for damages without appealing to the county superintendent (Iowa code of 1927, §4237). — Shill v. School Township of Rock Creek, Jasper county, 227 Northwestern reporter 412, Iowa.

A teacher was not bound to seek similar employment outside the community, or employment of lower or different grade, before suing for a breach of her contract. — Shill v. School Township of Rock Creek, Jasper County, 227 Northwestern reporter 412, Iowa.

A teacher, prevented from performing her contract, is held entitled to recover the full amount she would otherwise have received. — Shill v. School Township of Rock Creek, Jasper County, 227 Northwestern reporter, 412, Iowa.

#### WISCONSIN SCHOOL-LAW DECISIONS

The department of public instruction of Wisconsin recently issued the following opinions:

Unless specifically provided in the teacher's con-

tract, no deduction can be made from the compensation agreed upon that the school has been closed because of the prevalence of an epidemic; or because the school building has been burned; or because no pupils are present, provided the teacher keeps herself ready at all times to render the services agreed upon in the contract.

\* \* \*

A school bus or vehicle used for the purpose of transporting children to and from school should always without exception, stop at a railroad crossing. If it happens that the crossing is at a place where the view of the track is obstructed by bluffs or trees, it is advisable that the driver, or some other competent person, be sent forward to look up and down the track.

\* \* \*

A teacher has full power to suspend a pupil, but not to expel a pupil from school, except in an extreme case. If the teacher suspends a pupil, it is her duty to notify the members of the board the same day.

It then becomes their duty to interest themselves in determining whether the pupil shall be reinstated, or the suspension shall be made to continue for a lengthened period of time. If it should occur that a pupil behaves in a manner that disturbs the discipline of the school, and school district officers refuse to expel him, then, and not until then, does a teacher have authority to expel.

Every teacher must recognize that it is her duty to guard her reputation as a teacher, and that under no circumstances should she permit the conduct of an unruly boy or girl to disturb the conduct and progress of the school.

#### GIRL GRADUATES LEAD IN HIGH SCHOOLS OF THE UNITED STATES

The public high schools of the United States graduated 474,736 pupils in 1928, compared with 424,437 in 1927, according to a recent report of Mr. Frank M. Phillips, statistician of the U. S. Office of Education. Of this number in 1928, 210,916 were boys, and 263,820 were girls.

The report shows that in 1928, the public high

schools graduated 474,736 pupils, 210,916 boys and 263,820 girls. The regular high schools graduated 324,489, and the reorganized high schools, 150,247.

Of 424,437 graduates in 1927, 129,630, or 30.5 per cent, went to college in 1928, and 52,248, or 12.3 per cent, went to some other institution. Of the boys graduated in 1927, 35 per cent went to college, and of the girls, 27 per cent. Of the boys graduated, 8.1 per cent went to some other institution, and 15.7 per cent of the girls went to some other institution.

In the regular high schools, 30.2 per cent went to college, and 13.3 per cent to some other institution after graduation. In reorganized schools, 31.2 per cent went to college, and 10.3 per cent to some other institution after graduation.

#### HIGH SCHOOL ADMINISTRATION

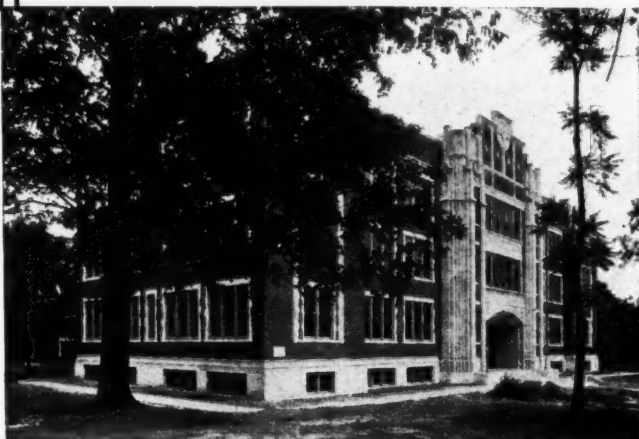
—Danville, Va. Approximately 50 per cent of the high-school graduates go on to college, and about 10 per cent attend special trade and commercial schools after graduation, according to data compiled on high-school graduates. In a check on freshman students in college, it is found that the Danville students lead all Virginia secondary-school students in percentage of freshman courses passed, and that they outrank most preparatory school records in this respect.

—Statistics recently gathered by Principal Gilbert J. Raynor, of the Hamilton High School, New York City, show that 8 per cent of the high-school graduating class failed to finish the four-year course. In February, 1926, a total of 689 freshman students were enrolled, but at graduation only 145 were candidates for diplomas. In other words, 80 per cent of the beginning class fell by the wayside.

Only 17 members of the class completed the course in 7 terms, while 41 have required 9 terms. Two remained for 10 terms.

It was noted that the average amount of time spent on home study by members of the class was 2 hours and 20 minutes. This is slightly under the average of most classes, and is reflected in the lower scholarship, only 7 members having obtained the honor grade of 80 per cent. Of the 145 graduates, 133 planned to go to college.





Gymnasium  
in the  
Father Ryan  
High School,  
Nashville,  
Tennessee



Each block is a complete unit of three or more flooring strips 13/16" thickness, in sizes from 6 3/4" to 13" squares. In addition to maple and beech, \*CELLized floor blocks may be obtained in oak, walnut, light and dark Philippine mahogany, either beveled or square edge.

## Maple and Beech blocks are used *without further finishing in schools*

**T**HEY are factory-sanded, and then chemically treated, effecting a very material saving in sanding and finishing costs. This improved product meets every requirement a school floor should possess; it is durable, supporting constant heavy use, with ease and noiselessness under foot; inexpensive in both original and upkeep costs. The unit block is rapidly laid, and the floor is economically maintained.

*Laid directly over concrete in EVERBOND, a plastic cement, providing a sound-deadening, resilient base.*

Sold through lumber dealers everywhere; manufactured by  
E. L. BRUCE CO. . . . . Memphis, Tennessee  
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NASHVILLE HARDWOOD FLOORING CO. . . . . Nashville, Tennessee  
ARKANSAS OAK FLOORING CO. . . . . Pine Bluff, Arkansas

**\*CELLized Oak Flooring Inc.**  
MEMPHIS - TENNESSEE



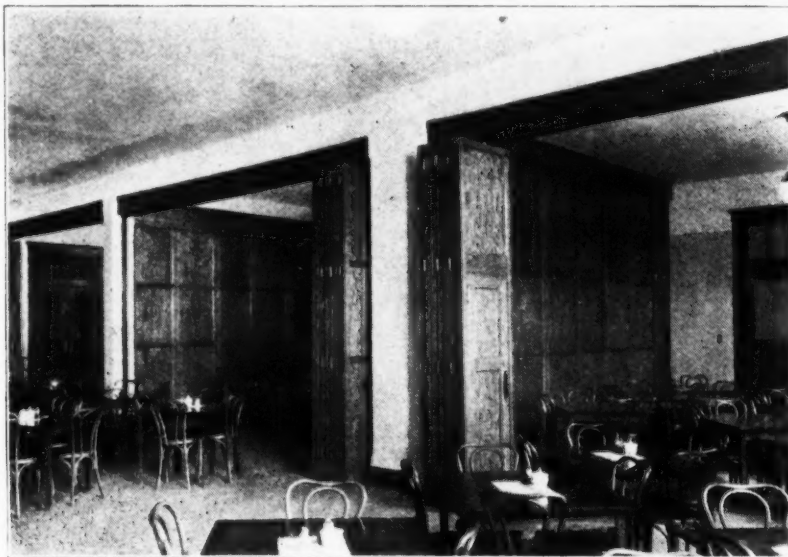
Front and back of 6 3/4" block

\*CELLized wood floor blocks are guaranteed by \*CELLized Oak Flooring Inc. Laid only by Licensed Flooring Contractors. The names of those licensed to use this label in your locality will be supplied upon request.



\*CELLized by a chemical treat, to reduce the tendency to change in size. Insect and decay resistant.





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## Personal News of School Officials

—MR. W. C. LAROS has been elected a member of the school board of Easton, Pa., to succeed Mr. E. T. Diefenderfer who has resigned. Mr. M. R. WILLIAMS was elected to succeed Mr. G. E. Kressler, deceased, who had served on the board for the past eight years.

—MR. JIM RAGLAND, of Fairview, has been elected chairman of the board of control of Hughes county, Okla. Mr. M. B. MILLER, of Calvin, was elected vice-president, and Mr. J. W. BELL, of Wetumka, secretary-treasurer of the board.

—The school board of Bellingham, Wash., has reorganized for the school year 1930, with the reelection of Mr. H. W. DIEHL as president for a new term of three years. Mr. ALBERT E. ANDERSON is the new member of the board, succeeding Homer Mark, who refused another term.

—MR. E. M. LANIGAN, a member of the school board of Somerville, Mass., for the past two years, and reelected to serve during 1930 and 1931, has announced his resignation.

—MR. ROBERT S. ALLAN, director of the school census of Seattle, Wash., for the last ten years, died on January 13, at the age of 66.

—MISS LILLIAN ARMSTRONG has been reelected as president of the school board of St. Marys, Ohio. Miss Armstrong is the first woman in Ohio to serve as president of a city board of education.

—MR. J. F. STAMBAUGH has been reelected as president of the school board at Ada, Ohio.

—MR. JOHN L. BEATTY, business manager of the board of education of Steubenville, Ohio, has been reelected for a two-year period. Mr. Beatty has just completed his first term in the office.

—MR. CHARLES B. BAKER has been reelected as

chairman of School Board No. 37, of Brooklyn, N. Y.

—MR. J. L. CARTER, of Fostoria, Ohio, has been reelected as president of the school board.

—DR. C. S. BRIGHAM has been reelected as president of the school board of Leominster, Mass. DR. WILLIAM H. PERRY was reelected as secretary.

—MR. W. J. COOKSON has been reelected as president of the school board of Worcester, Mass.

—MRS. MARY WICKER was appointed a member of the board of education of Noblesville, Ind. In comment on the appointment the Noblesville *Ledger* says: "Then, a woman is, perhaps, more capable of getting the most of every dollar of taxation than is the average man. Most women have had long training in trying to make the most of the dollar in the home and they will continue the same methods in dealing with the schools. And, yet, there is no danger of false economy at the expense of the children."

—MR. J. HILL FULLILOVE was elected president of the school board of Caddo Parish, Louisiana, and JAMES H. ROWLAND, vice-president.

—DR. EDGAR E. FYKE, president of the board of education of Centralia township, Centralia, Ill., passed away at a hospital in San Antonio, Tex., on December 31, at the age of 61. Dr. Fyke, who had been president of the Centralia township high school since its establishment in 1903, had been identified with every progressive measure, including the construction of the three buildings now forming the Centralia township high-school property. Dr. Fyke was a studious man, was fully cognizant of the value of education, and anxious to promote the acquirement of an education by every pupil in the community. The vacancy on the board has been filled with the appointment of Mr. Charles Wham.

—MR. B. P. STROMBERG, a former member of the board of education at St. Louis, Mo., died at his home in Maplewood on January 29, following an attack of pneumonia. Mr. Stromberg was 70 years old. He had completed two 6-year terms as a member of the board.

—MR. M. SPENCER STONE has been elected to the board of education of Ogden, Utah, for a five year period, to succeed Mr. Thomas M. Irvine.

—MR. FRED A. WARBLow has been elected president of the school board at Mt. Clemens, Mich. Mr. F. J. Heavener has been elected as member of the board to fill a vacancy.

—MISS A. HELEN ANDERSON has been appointed supervising teacher of publications for the school system at Denver, Colo. Miss Anderson will have as her duties the handling of school publicity and the editing of various monographs published by the school authorities. Miss Anderson previous to her present appointment was a teacher of English at the South High School.

—Mrs. Ida Farr Miller has resigned from the school board of Wakefield, Mass., after a service of 24 years. Mrs. Miller had been secretary of the board for the past twenty years.

—DR. F. W. BULLEN, president of the school board of Hibbing, Minn., has been elected president of the Range School Board Association. Other officers elected were: Frank Stoins, Eveleth, vice-president; and Alec King, Coleraine, secretary.

—The school board of Ravenna, Ohio, reorganized for the year 1930, with the reelection of Mr. W. J. ROBINSON as president; Mr. E. R. GIFFORD as vice-president, and Mr. C. A. WERTENBERGER as clerk.

—MR. A. A. MASSAR, who was recently reelected as clerk of the school board of Pomeroy, Ohio, has completed 33 years of consecutive service on the board. Mr. Massar was elected to the board for the first time in 1897. From January, 1912 to September, 1914, he was president of the board, and since that time has served as clerk.

—MR. WILLIAM TIERNEY, of Englewood, N. J., recently completed 25 years of service as a member of the school board of that city.

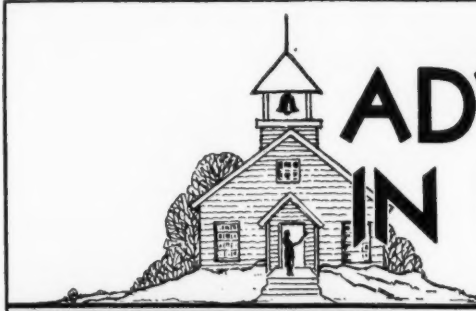
—MR. ARCHIE J. PRATT, the oldest member of the school board at North Adams, Mass., was elected as president of that body at its reorganization. Mr. Pratt succeeds H. B. Clark, who had been a member for more than sixteen years.

—MR. W. E. BICE has been reelected as a member of the school board of Hollidaysburg, Pa.

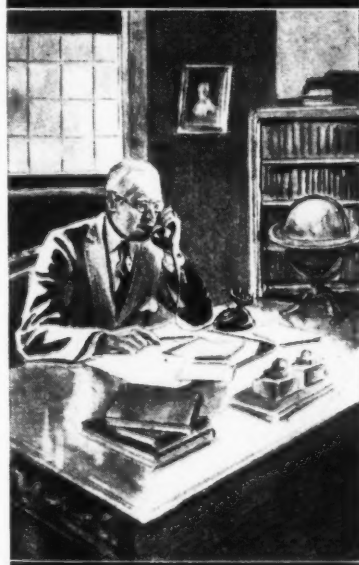
—MR. F. J. EMENY has been reelected as president of the school board at Salem, Ohio. MR. F.

(Concluded on Page 84)





# ADVANCED METHODS IN EDUCATION



## Require Advanced Methods In Interior Communication!

Educational methods are forever being improved. So are methods of achieving school supervision.

At one time, intercommunication in schools was dependent on foot power, or else neglected altogether. Today, schools are large and complex. Smooth operation demands the finest tools of efficiency.

This is why Strowger P-A-X has become an essential item of equipment in the country's leading high schools, elementary schools and colleges. Its uses in checking absentees, obtaining immediate connections with the custodians, summoning pupils, instructing teachers and in a variety of other practical services make Strowger P-A-X an essential aid in handling daily routines.

Strowger P-A-X is the only private automatic telephone system that is built of apparatus adopted as standard by public telephone companies. The equipment is rugged, durable, easy to maintain and is practically trouble-free.

Strowger engineering service is backed by more than forty years of experience in the production of automatic telephone equipment for service the world over. You may call upon Strowger engineers for any information you may desire, and they will submit detailed studies of any project on request. Write them for further information, or ask for Bulletin 1026.

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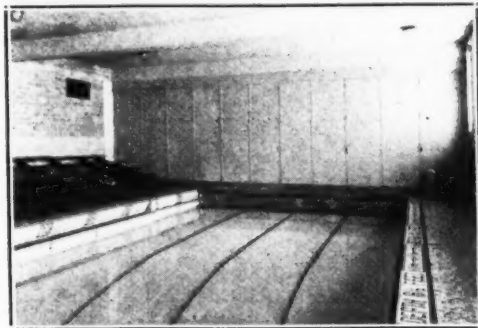
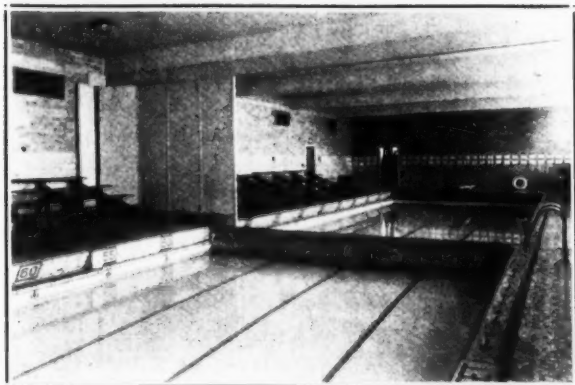


## DOUBLE NATATORIUM

A POOL PROBLEM

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HORN SELFOLD PARTITIONS



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MECHANICALLY OPERATED

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NOTE THE SMOOTH WATERPROOFED SURFACE OF THE FOLDING PARTITION AND THE ALUMINUM SHOES ACROSS THE BOTTOM OF EACH SECTION. COMPLETE INFORMATION WILL BE GLADLY FURNISHED REGARDING THESE EXTRAORDINARY PARTITIONS FOR SWIMMING POOLS, AUDITORIUMS, GYMNASIUMS, ETC.

HORN FOLDING PARTITION CO.

FORT DODGE, IOWA.

Representatives in all Principal Cities



(Concluded from Page 82)

P. MULLINS was reelected vice-president, and Mr. ALBERT HAYES as clerk of the board.

—The school board of Alliance, Ohio, has reorganized with the election of Mr. HERBERT WOOLF as business manager, and Mr. J. S. GARMAN as president. Two new members, Mr. DILLON CRIST, and Mr. T. W. COPE, took their places on the board for the first time.

—Mr. W. C. FISHER has been reelected as president of the school board of Lorain, Ohio, for a second consecutive term.

—Mr. CHARLES H. MAY has been reelected as president of the school board of Circleville, Ohio.

—Dr. B. O. KREILICK has been elected president, Mr. C. F. WALTON clerk, and Mr. NORMAN FULTON vice-president of the school board at Fremont, Ohio.

—Mr. CHARLES H. JONES has been reelected president, Mr. RALPH HAMILTON vice-president, and ALLIE L. STIFFLER clerk, of the school board at Jackson, Ohio.

—Mr. JOHN E. EVANS has been reelected president of the school board at New Lexington, Ohio. Mr. W. E. PLETCHER was named vice-president, and Mr. C. R. RIDENOUR clerk of the board.

—Dr. J. L. CARTER has been reelected president of the school board of Fostoria, Ohio. Mr. A. L. MANN was reelected as vice-president, and Mr. W. J. DAUB was chosen as clerk-treasurer of the board.

—The school board of Portsmouth, Ohio, has been reorganized with the reelection of Mr. W. B. ALTSMAN as president, Mrs. R. D. MARTING as vice-president, and Mr. W. C. HAZLEBECK as clerk.

—Mr. F. E. MCCLAIN has been reelected as president of the school board of Lima, Ohio. Mr. W. C. DERBYSHIRE was elected clerk, to succeed J. G. WATSON.

—Mr. E. B. HUGHES has been reelected president of the school board of Hamilton, Ohio. Mr. Hughes has completed five years of service on the board.

—Mr. WALTER H. COLES has been reelected as president of the school board of Troy, Ohio. Dr.

GEORGE E. McCULLOUGH was elected vice-president, and Mr. R. A. KERR, secretary-treasurer.

—Dr. ABRAM SIMON has taken his place as a member of the school board at Washington, D. C., succeeding Mr. ISAAC GANS.

—Miss LORETTA GEARY has been elected secretary of the school board of Homestead, Pa., to succeed Miss SARA WEIS.

—Mr. A. E. CRANNEY, retiring member of the school board of Logan, Utah, was the guest of honor at a dinner in the high school, given by the members of the board, the superintendent, and the clerk of the board. The board was reorganized with the election of Mr. OLE SONNE as president; Mr. JOSEPH H. TARBET as vice-president; Mr. DAVID TARBET as clerk; and Mr. H. J. HATCH as treasurer. Mr. A. G. OLOFSON took his seat for the first time as a member.

—Mr. A. A. SWOPE has been reelected as president of the school board of North Canton, Ohio.

—Mr. W. W. WILKERSON has been elected as president of the school board of Nashville, Tenn., to succeed Eugene Nichol.

—Mr. JACKSON M. PAINTER, a member of the school board of Williamsport, Pa., died at a local hospital on January 1, following an operation.

—Dr. E. E. STUTSMAN has resigned from the board of education of Washington, Iowa, after a service of nine years.

### RULES AND REGULATIONS

—The school committee of Lynn, Mass., has ruled that, hereafter, every school-department employee must renew his automobile license at his own expense.

—The board of education of Portland, Me., has abolished the practice of keeping children after school as a disciplinary measure. The main reason given for this order is that children who are thus detained, are forced to leave the buildings after traffic officers assigned to streets in the immediate vicinity of the school buildings leave for other duties when the school has been formally dismissed and the children are well on their way home. The detained children lose such protection.

### THE SERVICES OF DR. GEORGE W. GERWIG OF PITTSBURGH

The school board of Pittsburgh, Pa., recently adopted a resolution of appreciation on the services of Mr. George W. Gerwig, who has resigned as secretary of the school board, after a service of eighteen years. He had been a member of the board continuously from 1911 up to his retirement on January 31, 1929. The resolution reads as follows:

The thoroughly great man is he who has done everything that has come his way; he who has never despised anything, however small, of God's making; he who has understood the art and joy of humble life. Dr. Gerwig, throughout his career, has shown a deep and wide range of interest in children, and no service was too great or too small for his immediate attention.

He received his elementary education in the public schools of Pittsburgh and his degree of Bachelor of Arts from the University of Nebraska in 1889, and the degree of Master of Arts in 1891. The University of Pittsburgh, in 1904, conferred upon him the degree of doctor of philosophy. His educational training was supplemented by summers at Chautauqua, by several trips to European countries, and by intimate contact with pleasing personalities.

Mr. Gerwig began his service in the administrative end of public-school work as secretary of the board of school controllers of the City of Allegheny in 1892, and served continuously until 1911, when the Allegheny schools came under the jurisdiction of the present board of education. He was elected secretary of the Pittsburgh board of education which position he held down to the time of his resignation.

In addition to his wide service in the field of public education, Mr. Gerwig rendered conspicuous service as a public lecturer and author. For many years he was a trustee of the Chautauqua institution and a trustee and secretary of the Frick Educational Commission. His service on these two commissions is an outstanding contribution to the educational life of Pittsburgh and will be remembered by the many teachers who have profited by the training received.

Mr. Gerwig had the happy faculty of combining good hard commonsense with idealism, and while the school board will miss his active participation in the counsels of the members, it is confidently believed that his chief interest is still in the public schools of Pittsburgh.





Combination Cabinet

W. D. H.  
36 x 18 x 78"  
36 x 21 x 78"  
36 x 24 x 78"



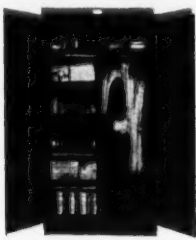
Wardrobe Cabinet

W. D. H.  
36 x 18 x 78"  
36 x 21 x 78"  
36 x 24 x 78"



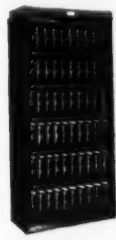
Stationery Cabinet

W. D. H.  
36 x 12 x 66" or 78"  
36 x 15 x 78"  
36 x 18 x 66" or 78"



Teachers' Cabinet

W. D. H.  
36 x 18 x 78"  
36 x 21 x 78"  
36 x 24 x 78"



"Doorless" Cabinet

W. D. H.  
36 x 9 x 66" or 78"  
36 x 12 x 66" or 78"  
36 x 18 x 66" or 78"  
36 x 21 x 78"



Sportsman's Cabinet

W. D. H.  
36 x 18 x 78"  
36 x 21 x 78"  
36 x 24 x 78"



Janitor's Cabinet

W. D. H.  
36 x 18 x 78"  
36 x 21 x 78"  
36 x 24 x 78"



Electrotype Cabinet

(With 2" or 3" Plain Drawers)

W. D. H.  
36 x 18 x 66" or 78"  
36 x 21 x 66" or 78"  
36 x 24 x 78"

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THERE are thousands of uses in schools and other places for Durabilt Steel Cabinets.

For secure, dust-proof, fire-retarding, vermin-proof and orderly storage of classroom supplies, stationery, office equipment, tools, instruments, blue prints, drawings, maps, printing cuts, machine and electrical supplies; for wardrobe purposes and innumerable other uses Durabilt Cabinets are an economical necessity.

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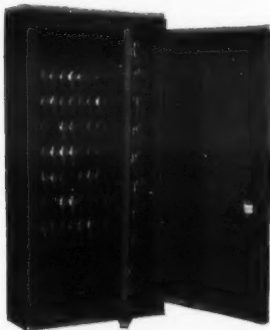
*No better built than Durabilt!*



Storage Cabinet

(With Shelves and Shelf Partitions)

W. D. H.  
36 x 18 x 66" or 78"  
36 x 21 x 66" or 78"  
36 x 24 x 78"



Key Cabinet

(Capacity 100 to 800 Hooks for Locker Keys. Larger keys reduce capacity.)

W. D. H.  
Small 15 x 4 1/2 x 30"  
Large 24 x 4 1/2 x 30"



Tool Storage Cabinet

(With plain shelves)

W. D. H.  
36 x 12 x 66" or 78"  
36 x 18 x 66" or 78"  
36 x 21 x 66" or 78"  
36 x 24 x 78"



Counter and Desk High Cabinets

W. D. H.  
36 x 18 x 42"  
36 x 21 x 42" or 30 1/2"  
36 x 24 x 42" or 30 1/2"



Blue Print, Map and Plan Cabinets  
(With 3" Drawers having flap at front and hood at rear)

W. D. H.  
36 x 18 x 42", 66" or 78"  
36 x 21 x 42", 66" or 78"  
36 x 24 x 42" or 78"



Desk High Cabinet

W. D. H.  
19 1/2 x 18 x 30 1/2"  
19 1/2 x 21 x 30 1/2"

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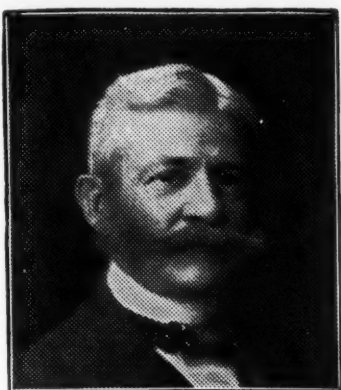
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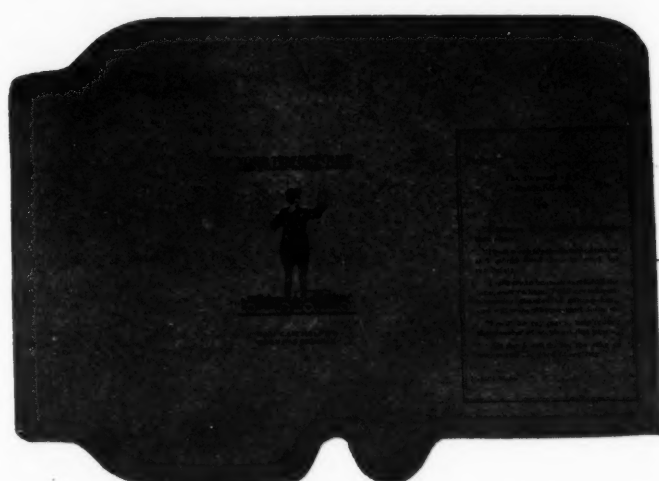
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*Divert the Daily Wear and Soiling  
from the BOOK to the COVER*

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**Flexible—Durable—Waterproof—Weatherproof**



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or intricate cutting

No waste caused by  
difficulty in adjusting  
cover to book.

The Book Cover that provides Book Protection.

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Springfield, Massachusetts

## Superintendents

—MR. THOMAS O. BAKER, retiring district superintendent of schools of New York City, was a guest of honor at a dinner, given by the Association of District Superintendents at the Hotel Astor, on January 22. Supt. W. J. O'Shea and President George J. Ryan of the board of education, were among the guests.

—MR. H. P. SHEPHERD, superintendent of schools of Knoxville, Tenn., has been elected president of the Tennessee School Officers' Association. He succeeds C. B. Ijams, of Jackson.

—MR. F. H. GILLILAND, of Sibley, Iowa, has been elected superintendent of schools at Devils Lake, N. Dak.

—MR. L. L. MORRIS, of White Plains, N. Y., has been elected superintendent of schools at Northport, to succeed M. D. Losey.

—SUPT. GEORGE B. MILLER, of Aberdeen, Wash., has been reelected for his seventeenth consecutive term as head of the schools. Mr. Miller has completed twenty-three years of service with the city schools.

—MR. IRA B. FEE, of Missoula, Mont., has been reelected as superintendent for a new three-year term. Mr. Fee enters upon his fifth three-year term on August 1.

—SUPT. CHARLES A. KITTRELL, of the west side schools of Waterloo, Iowa, has been reelected for a three-year term, effective on July 1.

—SUPT. D. J. BOONE, of Lorain, Ohio, has been elected president of the Ohio Education Association for the year 1930. He succeeds Mr. J. F. RICHESON, of Youngstown.

—MR. HENRY J. GERLING, formerly assistant superintendent of schools of St. Louis, has been elected superintendent of the school system for a

four-year term, at a salary of \$11,000 per annum. Mr. Gerling came to St. Louis as principal of the Laclede School, later serving as principal of two other schools. He was made assistant superintendent of schools, which position he continued to hold under two former superintendents. He is a graduate of the University of Missouri, and holds three degrees given by that institution.

—The several service clubs of Anacortes, Wash., are directed by schoolmen. SUPT. GAYLORD WILSON GREEN serves as president of the local rotary club, and PRINCIPAL DEFORE CRAMBLITT is president of the Kiwanis club. Both of these clubs devote considerable attention to boy's work in the schools.

—MR. HENRY F. SUTTON has been reelected superintendent of schools at Green Bay, Wis., for a new term of three years.

—MR. FLOYD C. WILBUR, deposed superintendent of schools at Vandercook Lake, Mich., won his suit when a jury granted him \$5,000 of \$6,000 in back salary and cleared his name of charges made by members of the board. The school board is expected to appeal the case.

—MR. H. F. STEELE, of Ann Arbor, Mich., has been elected superintendent of schools at Jackson, Mich., to succeed E. O. Marsh. Mr. Steele is a graduate of Albion College and the Kalamazoo Teachers' College, and holds degrees given by the University of Wisconsin, the University of Chicago, and Teachers College. Since 1928 he has pursued a special graduate course at the University of Michigan in preparation for a Ph.D. degree.

—MR. J. B. RUSSELL, 70, for thirty years superintendent of schools at Wheaton, Ill., died at his home in that city after a brief illness. Mr. Russell went to Wheaton from Henry county, where he had been superintendent of schools. His first position in the suburb was as professor of science at Wheaton College, after which he became superintendent of schools. He was a member of the Round Table of Illinois, an organization of Illinois school superintendents.

—MR. THEOPHILUS JOHNSON, retiring principal of Public Schools 11 and 125, Queens, New York City, was the guest of his staff and friends at a testimonial dinner, given in the Hotel Astor, on

Saturday, January 12. President George J. Ryan and Mr. Thomas H. Sweeney both related some of Mr. Johnson's triumphs in school activities. An ornamented sun dial on a granite pedestal was presented to Mr. Johnson as the gift of his teachers.

—SUPT. LULU PICKETT, of Superior, Wis., has been reelected for another year, at a salary of \$5,000.

—DR. DAVID FELMLEY, 72, president of the Illinois State Normal University, died at his home in Normal, on January 24. Dr. Felmley who had been one of the leading educators of the state, had been president of the teachers' college for nearly thirty years. Because of failing health, Dr. Felmley had presented his resignation, which was to become effective on July 1. He was the oldest member of the Illinois teachers' association and the Illinois schoolmasters' club.

—MR. JOHN B. HAGEN has been elected superintendent of schools at Hanley Falls, Minn., to succeed Theodore Gilbertson.

—MR. FRED A. SEAMAN, principal of the Seaman Rural High School at North Topeka, Kans., has announced his candidacy for the office of state superintendent of public instruction on the Republican ticket.

—MR. H. C. WEBER, of Nashville, Tenn., has resigned from the superintendency after a service of fifty years. Mr. Weber, who had been superintendent of schools for the past eleven years, was best known for his all-year school and other progressive educational methods.

—MR. EUGENE C. STEVENS has retired as principal of the Stevens, Albion, and Ellsworth Schools of Denver, Colo., after a service of more than thirty years. Mr. Stevens completed sixty years of service in the teaching profession. MR. CLAUDE B. PENDLETON succeeds Mr. Stevens as principal.

—MR. AUBREY BENNETT, who succeeded Mr. Claude Pendleton as principal of the Bryant School, Denver, Colo., was formerly a member of the faculty of the Baker Junior High School.

—SUPT. E. W. MACKAY, of Milan, Mich., has been reelected for another year as head of the school system. Mr. Mackey is completing his fifth year in Milan this year.



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To schools unfamiliar with our brushes, we will send one for 30 days free trial to be paid for only if found entirely satisfactory. Write for one to-day.



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After Ordinary Sweeping



After Dustless Brush Sweeping

## Test made by the Health Department of the City of Milwaukee

The following test, conducted by the Health Department of the City of Milwaukee, proved the advantages of **Dustless Brush** sweeping.

School rooms were swept by ordinary methods and also with **Milwaukee Dustless Brushes**.

Gelatin plates were exposed to the school room air for one minute before and after sweeping by each method. Germ laden dust particles settled on the plates and developed into germ colonies as shown by the above photographs. The germ colonies were counted and the effects of the several methods of sweeping upon the number of germs circulating in the air were analyzed.

It was found that by reducing the germ laden dust in the air by 97% the **Milwaukee Dustless Brush** had far outdone all other methods of sweeping.

It is only natural that the City of Milwaukee now uses **Milwaukee Dustless Brushes** exclusively for the sweeping of its school rooms.

**MILWAUKEE DUSTLESS BRUSH CO.**  
102 - 22nd STREET MILWAUKEE, WISCONSIN

—MR. J. J. KEYES has been appointed as acting superintendent of schools at Nashville, Tenn., succeeding Mr. H. C. Weber, who resigned.

—SUPT. P. C. EMMONS, of Mishawaka, Ind., was one of the speakers at the meeting of the research club of the state association of city superintendents held in Frankfort on February 5. Mr. Emmons talked on the subject of vocational guidance.

—SUPT. W. G. BOLCOM, of Virginia, Minn., has announced his resignation, effective with the close of the school year.

—SUPT. A. C. DEAMER, of Cedar Rapids, Iowa, has been reelected for a new three-year term, which is to become effective next September.

—SUPT. HENRY F. SUTTON, of Green Bay, Wis., has been reelected for a term of three years. Mr. Sutton was elected last summer and his term would have expired in July.

—SUPT. I. M. ALLEN, of Highland Park, Mich., has been reelected for a new term of three years, beginning with July, 1930. During Mr. Allen's term of office, a survey of the school system was undertaken, an administrative council was organized, the teaching load was standardized, and an analysis of the financial status of the school system was carried out. The entire school system was reorganized to meet a reduced revenue, which occurred when the Ford plant was moved. He provided for more adequate prevocational training by having students take vocational courses and vocational music.

—MR. C. W. SHUMWAY, of Vancouver, Wash., is entering upon his 35th consecutive year as superintendent of schools. During his long period of service, Mr. Shumway has seen the system grow from a dozen teachers to 120, and the number of the school buildings increase from three to ten. A new junior high school has been named for Mr. Shumway.

—T. R. COLE has resigned the superintendency of the Seattle, Washington, schools. He gives as his reason the fact that the city will soon have a board of education that will support unionism in the teaching service. The *Tacoma News Tribune*, in commenting on the resignation, says: "Two years ago some of the Seattle teachers announced they

had joined the American Federation of Labor, but later withdrew from that organization when the school board refused to renew contracts of members. Cole says that two new members favorable to unionism were elected last spring, and that the election of a third member would give the unionists a majority. He said he does not intend to see the fine system which he has been responsible for building, torn down by such strife as has beset the Chicago schools, and that he would rather quit an \$11,000 job than work under similar conditions."

—SUPT. R. A. KLAUS, of Edgerton, Wis., has been reelected for a three-year term.

—MR. DAVID WEAVER, of Emmet, Ark., has been appointed as assistant supervisor in the division of school buildings and grounds of the state education department. Mr. Weaver will assist Mr. J. O. BAKER, supervisor of the division, in preparing plans for new consolidated buildings to be erected in various parts of the state.

—MISS BERYL HENRY, principal of the high school at Hope, Ark., has been elected superintendent of schools, succeeding D. L. Paisley. Miss Henry holds degrees given by Henderson College and Peabody College, and has also completed special courses at the University of Colorado and the University of Chicago.

—DR. HARRY S. GANDERS, who recently took over the deanship of the teachers' college at Syracuse University, Syracuse, N. Y., is in charge of the training of high-school teachers for one of the most populous sections of the country. The territory served by the University embraces central New York and touches New England, Delaware, and Ohio, with sections of Ontario and Pennsylvania.

—SUPT. CHARLES POOR, of Traverse City, Mich., has been reelected for a new three-year term.

—SUPT. W. LLOYD GARD, of Beardstown, Ill., has been unanimously reelected for the next school year.

—SAMUEL LEVY, an attorney, has been appointed as a member of the New York City board of education to succeed the late M. Samuel Stern. He was born in New York and has attained prominence in philanthropic work.

—SUPT. GEORGE M. HARRIS, of Hardin, Mont., has been reelected for another three-year term. Mr. Harris served as principal of the high school for five years, and had completed four years as superintendent of schools.

—SUPT. F. E. CONNER, of Belle Fourche, S. Dak., has been reelected for a new term of three years. Mr. Conner has been superintendent of schools since July, 1925, and previous to that was principal of the high school.

—MR. V. J. LINN, of Virgil, Iowa, has been elected superintendent of schools at Alpena for the next school year.

—MR. C. T. VANCE has taken over the duties of superintendent of schools at Morristown, Tenn.

—MR. W. J. SHIRLEY has been elected superintendent of schools at Havre, Mont., for another term.

—SUPT. DAVID S. FRYE, of Bronson, Ohio, has been reelected for a fourth consecutive year, at an increase in salary.

—SUPT. L. W. SEIBEL, of Harlem, Mont., has been reelected for another year.

—SUPT. G. N. CHILD, of Salt Lake City, Utah, has been reelected for a new term of two years. Mr. Child has completed five years of consecutive service as head of the school system.

—MR. A. H. DOUGLAS, of Butte, Mont., has announced his retirement, effective on August 1 next.

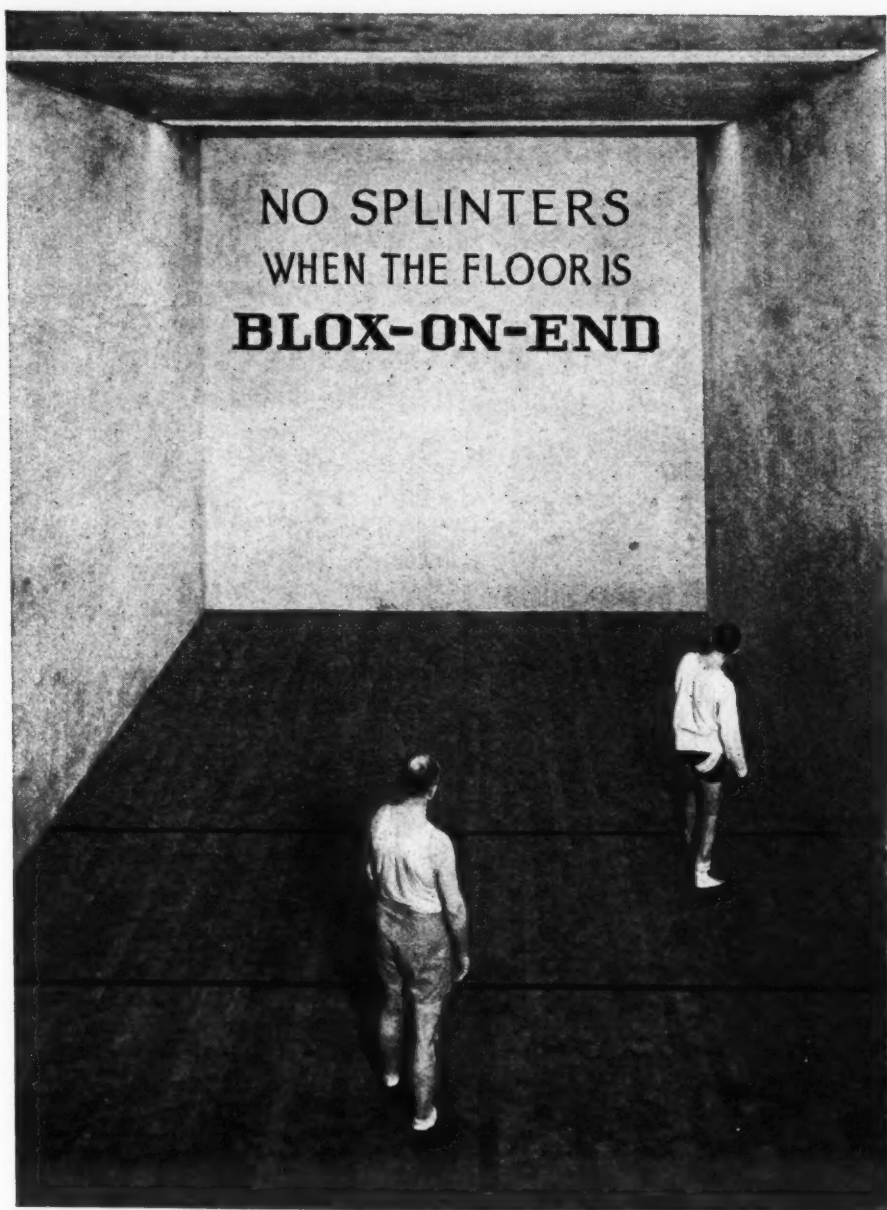
—DR. WILLIAM H. P. FAUNCE, educator and president emeritus of Brown University, died at his home in Providence, R. I., on January 31. Dr. Faunce, who was 71 years old, retired last June as head of the University. He was graduated from Brown University in 1880, and was president of the University from 1899 to 1929.

—MR. SAMUEL E. SHULL retired from the superintendency of Perth Amboy, N. J., on January 26, after the completion of 35 consecutive years of service. During his period of service, Mr. Shull saw the city grow from a community of 9,000 to a city of 55,000 population. Before going to Perth Amboy in 1895, Mr. Shull had been superintendent of schools in Easton, Pa.

—MR. CHARLES S. CLARK, for 28 years super-

(Concluded on Page 90)





**T**HIS illustrates a Bloxonend floored handball court in the Illinois Athletic Club, Chicago. The same flooring has been installed in the courts of Princeton University, Medinah Athletic Club, City Club and Harvard-Yale-Princeton Club (Chicago), Adelphi College, Garden City, N. Y., Philip's Exeter Academy, Exeter, N. H., and in numerous other colleges and universities.

A floor of Bloxonend is inherently resilient and inherently *fast*. It is smooth, durable, attractive and affords a sure foot-hold and is safe—no splinters. The end-grain fibres form the wearing surface.

Nearly all prominent school architects specify Bloxonend for gymnasiums and shops. Write for Booklet "School Floors."

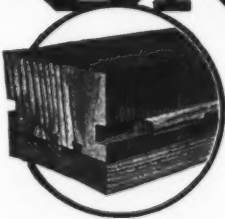
CARTER BLOXONEND FLOORING COMPANY

Kansas City, Missouri

Representatives in Leading Cities

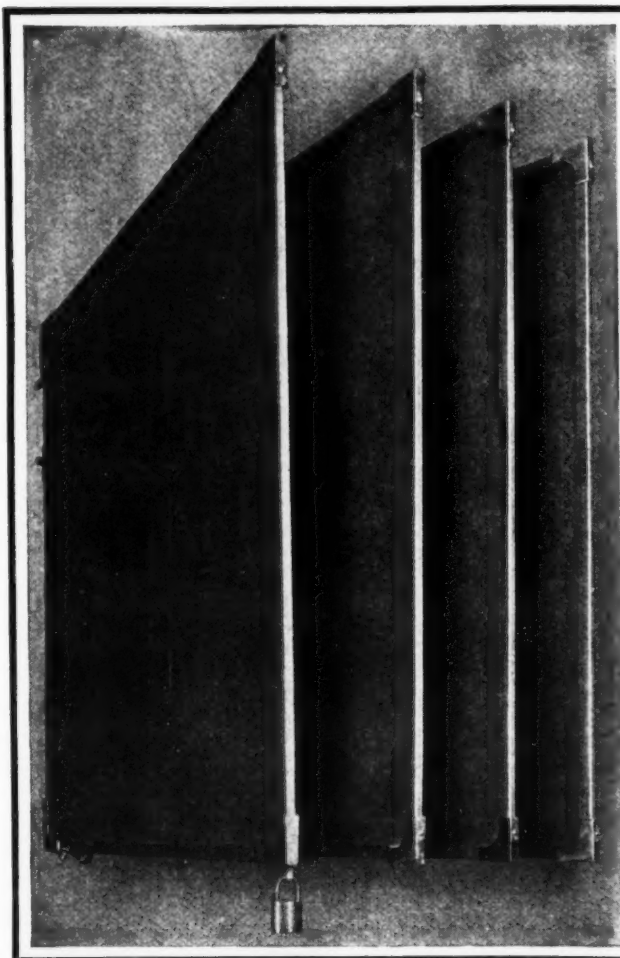
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The Alternator makes teaching so "easy". Just use the Alternator for quizzes, demonstration work, problem project system, permanent attendance records and lessons to be kept from day to day. Maybe the teacher who wants an Alternator could be called lazy but we would call her modern and efficient.

Write for Alternator prices and our catalog No. A-4

**THE K-M SUPPLY CO.**  
119-123 W. 8th St.      Kansas City, Mo.

(Concluded from Page 88)

intendent of schools at Somerville, Mass., died suddenly on January 29 at his home in that city. Mr. Clark, who was 72, met with a serious accident a few years ago, from which he never fully recovered.

Mr. Clark was born in Lowell, Mass., February 19, 1858. He was a graduate of Dartmouth College in the class of 1882, and held degrees given by Dartmouth College and by George Washington University. He was supervising principal and director of intermediate instruction at Washington, D. C., from 1890 to 1908, before going to Somerville. In 1928, at the completion of his 28 years of service, Mr. Clark was elected superintendent emeritus of the school system.

—Supt. W. E. HOFFMAN, of Mahanomen, Minn., has been unanimously reelected for a fifth consecutive term, with a liberal increase in salary. Mr. Hoffman is a graduate of the University of Wisconsin.

—Supt. D. E. WIEDMAN, of Bellingham, Wash., has been reelected for another three-year term, beginning with June 30, 1930.

—Supt. A. C. DEAMER, of Cedar Rapids, Iowa, has been reelected for a new three-year term, beginning with September, 1930. Mr. Deamer has completed eight years of service in the Cedar Rapids schools.

—Mr. LINDER W. HACKER, of the Illinois State Normal University, has announced his candidacy on the Republican ticket for the office of state superintendent of public instruction. He will be opposed by Francis G. Blair, the present incumbent of the office.

—Supt. W. JAY MCGARITY, of Aiken, S. C., is serving his fifteenth consecutive year as head of the school system.

—Supt. CHARLES C. HUGHES, of Sacramento, Calif., has been reelected for a new four-year term. Superintendent Hughes has completed seventeen years of consecutive service as head of the school system.

—Mr. GEORGE W. O'BRIEN has been appointed vice-principal of the junior and senior high school at South Milwaukee, Wis., to succeed Mr. C. H.

Emigh, who has resigned. Mr. O'Brien was formerly principal of the high school at Richland Center.

—Mr. EDGAR VANDERBILT, of Pasadena, Calif., who served for over fifty years in the New York public schools until his retirement a decade ago, died on January 17 at his home in Pasadena.

—Mr. R. P. ROSENTHAL, for ten years superintendent of schools at Oconto, Wis., has resigned.

—Supt. C. M. BARDWELL, of Aurora, Ill., formerly at East Aurora, was guest of honor at the opening of the new Bardwell School, which was erected under his supervision. The school has accommodations for 900 pupils and cost \$553,000.

—LORRAINE E. WOOSTER, former state superintendent of the Kansas schools, has been admitted to the bar in Oklahoma.

—Mr. JAMES A. ESTILL, of Okemah, Okla., has resigned. He is succeeded by Mr. W. P. HOPPER, formerly principal of the high school.

—Miss LAURA SHEPHERD has been appointed superintendent of the Beaver (Utah) Seminary, to succeed Parnell Hincley.

—Mr. MAYZ, of Montana, has been elected superintendent of schools at Hull, Iowa, to succeed the late J. F. Stamper.

—Mr. J. M. HODGES has been elected superintendent of schools at Tyler, Tex., for a term of three years.

—Supt. EDWIN C. BROOME, of Philadelphia, Pa., has been reelected for a new six-year term. Mr. O. P. CORNMAN, Mr. A. J. GERSON, Mr. LOUIS NUSBAUM, and Mr. PARKE SCHOCH were reelected as associate superintendents.

—Mr. G. H. SANBERG, of Rochester, Minn., has been reelected for a new term of five years.

—Mrs. KARL ADAMS has been elected acting superintendent of schools at Santa Cruz, Calif., to fill the position left vacant by the death of her husband.

—Mr. JAMES H. RISLEY, of Pueblo, Colo., has been elected president of the Colorado Education Association for the year 1930.

—Mr. D. T. WEIR has been appointed as acting superintendent of schools at Indianapolis, Ind., to succeed Mr. Charles Miller.

—A tribute to Mr. FRANK H. WOOD, formerly

director of the school buildings and grounds division of the New York State Education Department, was paid at a testimonial dinner, given by the men of the department on December 20, in Albany, N. Y. Mr. Wood retired last spring after 46 years of service to the schools of the state.

Among the speakers at the dinner were Commissioner of Education Frank P. Graves, Dr. Harlan H. Horner, secretary of the state teachers' association, and Dr. G. M. Wiley, assistant commissioner of secondary education. Mr. Wood was presented with a testimonial book containing the signatures of his colleagues in the department.

—Mr. R. C. WILLIAMS has recently been appointed as director of research for the schools of the state of Iowa. Mr. Williams is a graduate of Central College, the University of Chicago, and the University of Iowa, and is the holder of a master's degree. He has enjoyed a wide experience in school administration and is a regular contributor to the educational literature.

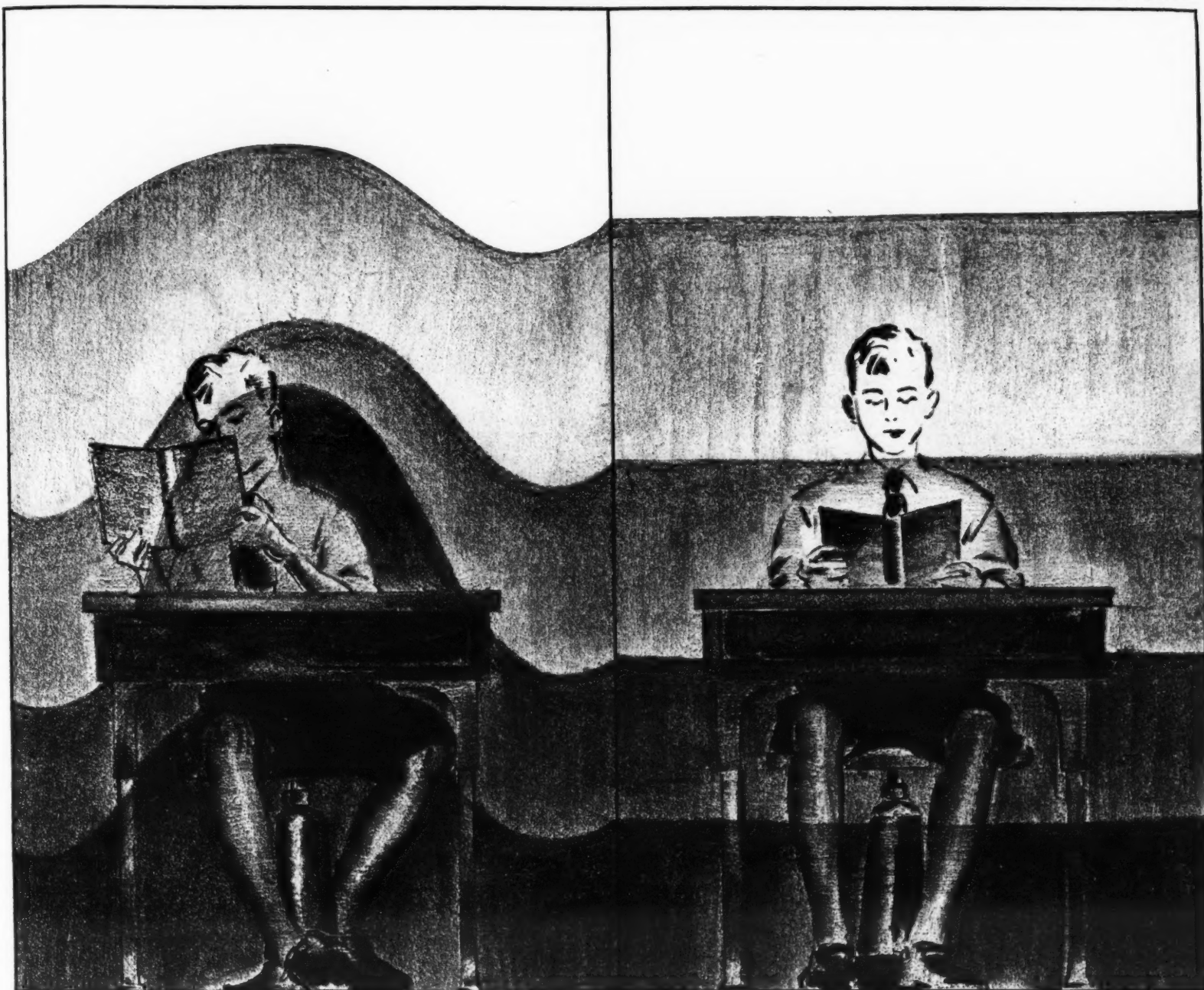
—Dr. G. H. REAVIS, formerly professor of education at the University of Pittsburgh, and high-school supervisor in Missouri, will act as high-school supervisor in Ohio. Mr. Reavis holds a degree given by Columbia University.

### SCHOOL VENTILATION COSTS IN 1930

The *American Heating and Ventilating Magazine* in a supplement issued for the recent convention of the American Society of Heating and Ventilating Engineers, gives prominence to the cost of heating and ventilation in schools and other educational buildings of the school type. The cost of heating and ventilation in schools will represent a higher percentage of the total building cost of the year 1930 than in any other type of structures. It will represent a total of 14.32 per cent of the entire cost. The nearest approach to this is office buildings which will require expenditures of 10.61 per cent. The estimates for 1930 would indicate that \$641,000,000 will be spent for school buildings and other educational buildings of the school type and that of this vast total, \$65,365,168 will be spent for heating and \$25,634,184 will be spent for ventilating systems.



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## STRANGE WHAT LIGHT WILL DO *where there is no* BALANCED LIGHTING

A class-room may be equipped with high efficiency lighting units and still be poorly lighted.

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Experience has shown the most useful lighting to be an adjustment of variable quantities

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—in a fixture, the *balance* of lighting factors against its requirements. Eight points are here involved, as the table shows.

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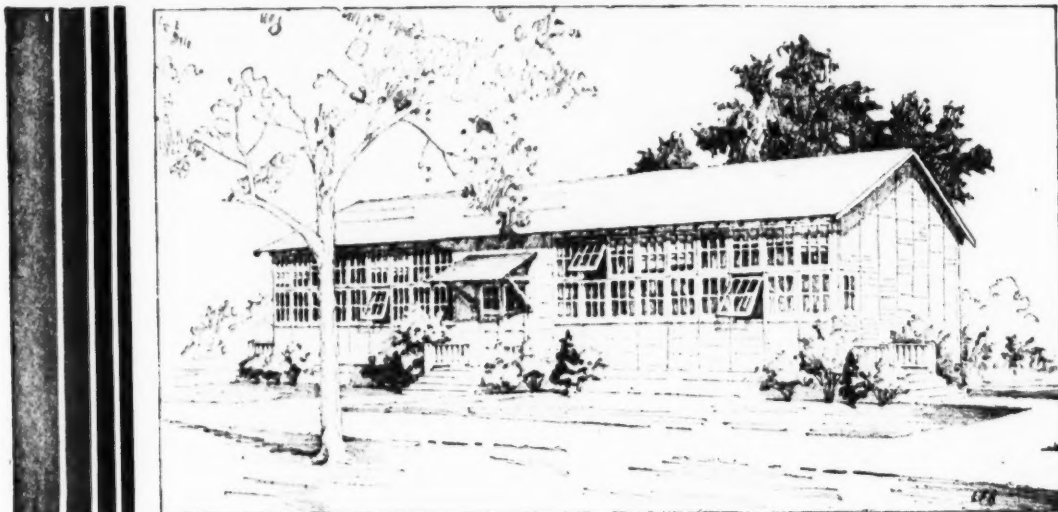
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# CIRCLE A BUILDINGS

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### BUILDING NEWS OF THE SCHOOLS

#### A PLAN FOR A NATIONAL ADVISORY COUNCIL ON SCHOOL-BUILDING PROBLEMS

The committee on school-building service presented to the National Council of State Superintendents and Commissioners of Education at its meeting in Washington, on December 9, a set of resolutions concerning a proposed plan for a national advisory council on school-building problems. At the meeting held at that time, it was voted unanimously to organize an advisory council on school-building problems.

As will readily be seen, the plan for the advisory council calls for a division of the country into nine regions, each of which has an advisory council composed of a state superintendent, a city superintendent, a county superintendent, a school-board member, an architect, and the chiefs of the divisions of schoolhouse planning. The nine councils in turn make up the central advisory council. The first meeting of the national council took place on February 26, at Atlantic City, N. J., in connection with the meeting of the Department of Superintendence of the National Education Association.

#### NEW YORK CITY BUILDS SCHOOL EVERY THIRTEEN DAYS

A new school building every 13 days on the average is the record of the New York City board of education, according to a statement of Mr. George J. Ryan, president of the board.

Including the schools under construction, the stupendous building program of the post-war period called for an expenditure in excess of \$250,000,000 and provided more than 350,000 new sittings to take care of the increase in school population.

The 10-year program, planned to meet the immediate needs as the schools became more crowded, and shiftings of population created a demand for new schools in outlying districts, produced 289

buildings, the majority of which have been erected where most needed—that is, in Queens, Brooklyn, and Bronx boroughs.

Under the operation of the program, 30 of the 289 structures were erected in Manhattan, and the rest were distributed among five different boroughs. In addition, 13 new buildings were opened with the beginning of the new semester. These added 14,000 to the city's school sittings. The peak of the construction was reached in 1925, when 64 schools were erected, with a total of 111,425 sittings.

The total cost of the 10-year building program was \$201,420,000, and the structures now in various stages of construction have used up appropriations of about \$49,000,000. Altogether, there has been expended a total of \$263,920,000 on school construction since 1920.

#### THE ST. PAUL SCHOOL-BUILDING PROGRAM

The school board of St. Paul, Minn., has issued a statement concerning the program of school improvement which has been carried out under the eight-million-dollar school-bond issue authorized in 1917. The report shows how the city has profited from the bond issue in modernizing and enlarging the school plant. The bond issue of November, 1928, provided for \$150,000 for specified school improvements.

The report points out that practically every item of expenditure on school improvements within the past twelve years was made possible by the generosity and foresight of the citizens in approved bond issues. The eight-million-dollar issue, which was divided into two parts, one of which was approved in June, 1917, and the second in November, 1922. It provided \$2,644,040 for new buildings, \$870,237 for additions to schools, \$194,235 for remodeled schools, \$486,162 for new grade-school sites, \$3,122,879 for junior and senior high schools, and \$378,381 for junior- and senior-high-school sites. There is a balance of \$4,257 not yet assigned for any purpose.

The entire building program was divided among more than 100 individual projects, including 20 grade schools, 14 grade additions, 20 grade sites,

14 grade site additions, 14 junior and senior high schools, and 9 junior- and senior-high-school sites.

Prior to the issuance of the bonds, a detailed study was made of the population and school growth, and the projected improvements were carefully gone over, keeping in mind population shifts and industrial developments. New locations were so chosen that every new building would harmonize with the layout of the schools and would provide satisfactory school facilities for every child in the city.

#### THE PROGRESS OF THE DENVER SCHOOL- BUILDING PROGRAM

The school-building program during the past year has continued to keep pace with the growing educational needs of the city. A total of five building projects were completed during 1929. These included two elementary schools erected at a cost of \$94,000, and three additions to schools, costing \$371,000.

The 1930 building program includes a junior high school to cost \$500,000, an elementary school to cost \$240,000, and another smaller school to cost \$65,000.

Of the newly completed buildings, two, the Ellsworth and the Ashley, were dedicated in January with suitable programs. The Ellsworth School was named for Mr. L. C. Ellsworth, a pioneer who served on the school board from 1876 to 1878, and again from 1883 to 1889. The Ashley School was named for Mr. E. M. Ashley, another pioneer, who served on the school board from 1874 to 1877.

#### THE SELECTION OF SCHOOL SITES

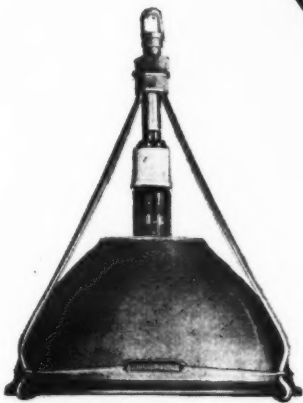
“The school building should be so placed as to be readily accessible to groups of children. The dangers of traffic now have an important bearing on school location. There should be no near-by nuisance, such as railroads, abattoirs, factories, and similar conditions.”

So reads a recent report issued by the United States Public Health Service: “The grounds should be well drained and the play area should be surfaced so as to be free from mud on wet days. In the grade schools, there should be a minimum of

(Continued on Page 95)



HARVARD UNIVERSITY  
BASEBALL CAGE



THE UNIT

ABOVE  
PHOTOGRAPH SHOWS  
THE LIGHTING RESULT

# PLANNED LIGHTING

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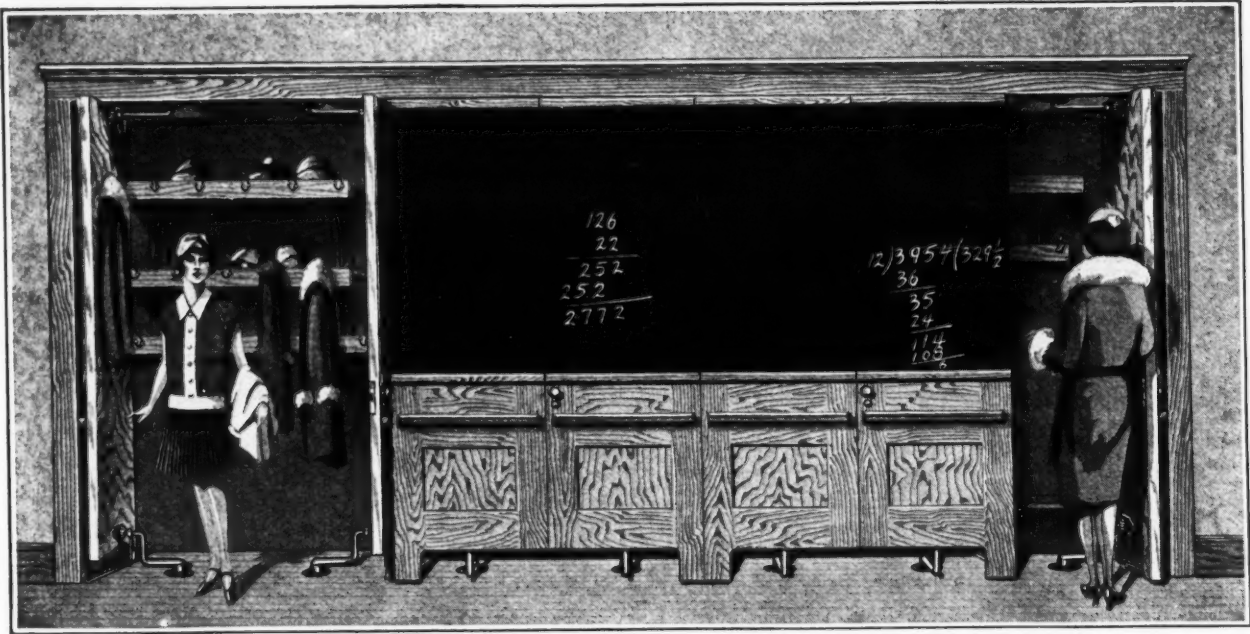
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Another distinguishing feature of R-W equipment is the continued easy, quiet, trouble-free operation

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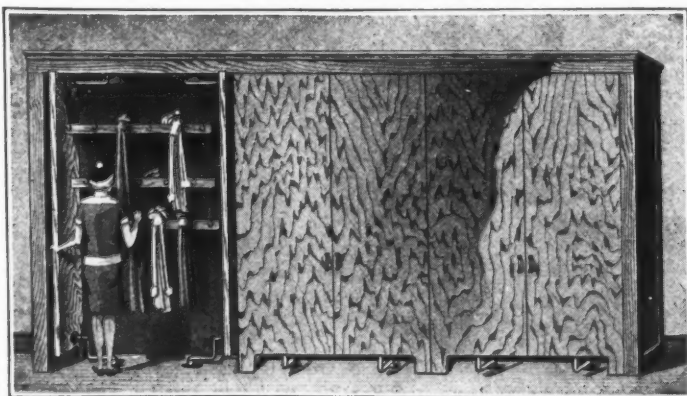
Richards-Wilcox assumes full responsibility for complete wardrobe installations with disappearing doors in any wood finish, with or without continuous blackboards, as illustrated and described in Catalog No. A-53.

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## For Modern School Buildings-

### Modern Floor Materials

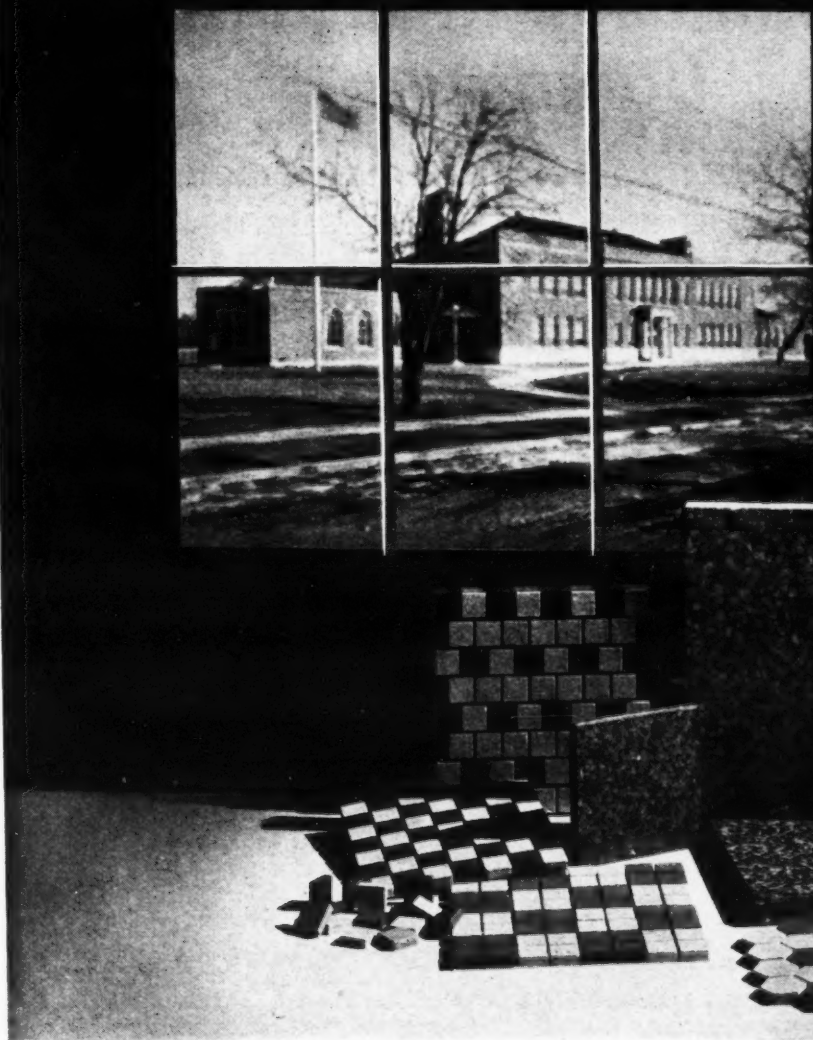
Permanently Non-Slip

Extremely Wear Resisting

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FLOORS**

Aluminum Tiles Treads & Aggregates

**NORTON COMPANY**  
WORCESTER, MASS.



(Continued from Page 92)

50 square feet of play area for each pupil, and additional ground space for gardens is highly desirable. Trees are not to be considered a necessity on the school grounds.

"They should never be near enough to the building to cast a shadow over the windows. Landscaping should, of course, be done if there is room, but this should not be given preference to the exclusion of playgrounds."

In discussing the question of schoolhouse exteriors, the report says: "The exterior of the building should be planned to be as attractive as possible, without interfering with the natural illumination of the rooms. No grade school should have more than three floors. Of course, the building should be fireproof. The halls should be wide and have as much natural ventilation and illumination as possible. The exits from the building should be wide and it is very important that all doors in the building—in the rooms, in the halls, and to the outside, should open outward. The doors leading from the building should be equipped with automatic fool-proof devices which will open the door when pushed by any child. The reason for this is to prevent the piling up of children in case of panic. It is notable that in all the disasters of recent years in school buildings the great loss of life has been due to this piling up, either behind locked doors or in narrow stairways. The hallways should be well lighted and always have some natural illumination. The furnace room should have fireproof walls, ceiling, and doors."

#### EVEN TEMPERATURE IN SCHOOL BUILDINGS

"The best schoolhouse is the one which fulfills the requirements of healthfulness and dollar value, with the least expenditure in first cost, operation, and maintenance." This was said by H. M. Nobis, consulting engineer, Cleveland, Ohio, in discussing the subject of an even temperature in school buildings. Mr. Nobis continues:

"Healthfulness in schoolhouses includes healthful location, good water, sanitary plumbing, maximum sun, minimum dust, and freedom from soot and smoke. It also includes good building construc-

tion for durability, low heat losses, minimum of noise transmission, elimination of dirt-harboring areas, and the adequate heating and ventilation of all rooms.

"Good heating and ventilating is based essentially on the strict observation of natural laws which suggest simplicity. Simplicity is not cheapness in heating and ventilating. Its sound value includes the getting of results, maximum life of materials, and the operation and maintenance of an all-round efficiency.

"It is not an easy matter to combine hygienic requirements and dollar value, warranting results even from a technical point only, but it is much more difficult to combine these requirements in such a way as to guarantee an economical operation, when applied to human and mechanical energy.

"It is well known that the majority of the school boards do not pay the requisite wages for the operation of an elaborately equipped heating and ventilating system, hence the often-heard complaint that the equipment is not properly operated."

#### DEDICATION OF THE OWOSSO HIGH SCHOOL

The dedication of the new high school at Owosso, Mich., took place on the evening of February 10. President Charles McKenny, of the Michigan State Normal College, gave the principal address of the dedication. Several representatives from various state institutions, and the architect, Mr. William B. Ittner, of St. Louis, gave talks. The *Argus-Press*, of Owosso, issued a special edition for the occasion.

The new high school is the first and largest unit of the program determined after a study of the building needs of the city by Supt. E. J. Willman and his board of education. The remaining units will follow as soon as the funds permit.

#### MOBILE STARTS NEW SCHOOL-EXTENSION PROGRAM

The school board of Mobile, Alabama, will receive from the city commission and the county board of revenue an appropriation of \$300,000 for the financing of an extensive program of remodel-

ing and enlargement of schools. Four-room additions will be erected for the Citronelle and Bayou La Batre schools, for which the sum of \$50,000 has been provided. The City of Mobile will erect two units of twenty rooms each for Negro schools. Mr. F. W. Clark has been employed as the architect for the new school-expansion program.

As part of the building program, the school board has completed plans for two units of eight rooms each for the Murphy High School. In addition to these, a gymnasium will be erected for the same school, at a cost of approximately \$65,000. Messrs. Warren, Knight & Davis, are the architects for these improvements.

#### NEW BUILDING AT OLYMPIA, WASHINGTON, DENOTES PROGRESSIVE TREND IN SCHOOL ARCHITECTURE

The Garfield Junior High School, which was recently completed at Olympia, Washington, indicates the passing of one of the educational landmarks in the city and the beginning of a new trend in local school architecture. The new Garfield School replaces an old building erected more than forty years ago.

The building, which is in the Italian Renaissance style, has an exterior of old-ivory cement, with a red-tile sloping roof, surrounding a flat deck, and cast-stone and face-brick trimming. It consists of two stories and a full basement, providing for an auditorium, a manual-training shop, a home-economics department, a library, and a cafeteria, in addition to thirteen classrooms. The exterior walls, corridors, and exits of the building are entirely fireproof, while semifireproof construction has been used for the remainder of the structure.

A covered passageway connects the building with a large outdoor play pavilion in the rear, which has sufficient ceiling height for basketball practice. It is equipped with a drinking fountain and lavatory facilities.

The building in its completed state represents the results of wise planning and foresight on the part of the architect, Mr. Joseph H. Wohleb, and Mr. E. L. Breckner, superintendent of schools. Credit should also be given to the six board members, who





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coöperated with the architect and the superintendent in carrying forward the construction plans.

### A SCHOOL FIRE-INSURANCE CASE

An interesting fire-insurance case, affecting school property, was recently tested in the courts at Erie, Pa. Stripped of its legal verbiage the case simply amounts to this:

The Erie school district received bids from insurance companies seeking to cover property valued at \$3,100,000. A mutual company submitted the lower bid. An action seeking to restrain the school district from placing the insurance was entered. The claim was set up that the negotiations with a mutual company were illegal. The cost of the insurance was estimated at \$27,900, but the anticipated return of 85 per cent promised to bring the entire premium cost for three years down to \$4,185.

The opposition based its contention upon the constitutional provision, which forbids any municipal corporation from becoming a stockholder in any corporation, because such participation involves a liability. The Pennsylvania state constitution seeks to prevent municipal corporations from joining as stockholders in hazardous business ventures, and loaning their credit for such purposes.

The Supreme Court of Pennsylvania, however, in rendering its decision, held that the purchase of insurance in a mutual company, having a limited liability, did not come within the meaning of the constitution. The school district does not become a stockholder, nor is it loaning its credit. Hence, the placing of insurance in a mutual company is quite regular and legal.

### BUILDING NEWS

—The school board of Warren, Ohio, has sold \$210,000 in school bonds for the purpose of building a new school and erecting an addition to another building. The bonds are in denominations of \$1,000 each and bear interest at 5 per cent, payable semi-annually.

—Provo City, Utah. The school board has begun work upon a school-building program, involving an expenditure of \$325,000. The program, developed by Supt. Charles A. Smith, includes the erection of two junior-high-school-building units, and a

small elementary-school unit.

—Tyler, Tex. The school board has awarded contracts for the erection of two junior high

### ARE BOTH THE ARCHITECT AND THE CONTRACTOR NECESSARY?

Perhaps the easiest way to compare the functions of the architect and the contractor is to turn for a moment to the medical field. Here, the architect is comparable to the doctor and the contractor may be likened to the druggist.

In other words, it is the duty of the architect to diagnose the client's building problem and to prescribe a correct treatment based on his highly specialized training and experience. And after the treatment is specified, it is the architect's further task to watch the development of the building project, see that the treatment is correctly administered, and to make such changes as circumstances dictate. The Architect is a professional man whose plans and specifications are but symbols of his natural talent and the skilled service he renders.

It is commonly the duty of the contractor to assemble the material exactly as prescribed, to organize capital and labor, and to execute the work specified in a prompt and efficient manner. With his technique of organization and construction he must convert the practical developed formula of the architect into a beautiful and useful building. The contractor is primarily a business man whose merchandise is the brick, stone, pipes, wiring, and so forth, properly placed.

Because each has a separate and distinctly essential function to perform, we believe you will agree with us that both the architect and the contractor are necessary to thoroughly satisfactory building.

Illinois Society of Architects.

schools. The buildings were planned by Bryan & Sharp, architects, of Dallas, and will be completed in September, 1930.

—A building survey has been begun at Plymouth, Wis., by a committee from the state education department. The survey is being made to assist the school board in determining the distribution of school population in the location of new building sites for school expansion.

—Laramie, Wyo. A high school, costing \$325,000, has recently been completed. The building has a large auditorium, a gymnasium, a library, and a swimming pool, and is wired for radio and intercommunicating telephone system. The building covers the major portion of a city block, and with the junior high school built some years ago, provides a plant valued at more than one-half million dollars.

—Minneapolis, Minn. The superintendent of schools has prepared a tentative building program covering the ensuing four-year period.

—Weston, W. Va. The second unit of a three-unit grade-school building will be completed during the year 1930. The building will cost \$50,000, and the equipment \$10,000.

—Kenosha, Wis. The school board has made a number of changes in the interior of school buildings to increase safety and to decrease fire hazards. The changes were made following a careful survey of building conditions.

—New York, N. Y. Steps have been taken to expedite the erection of four new schools included in the 1929 school-building program. A contract has been awarded for the erection of one elementary school, and plans will be approved for three additional buildings.

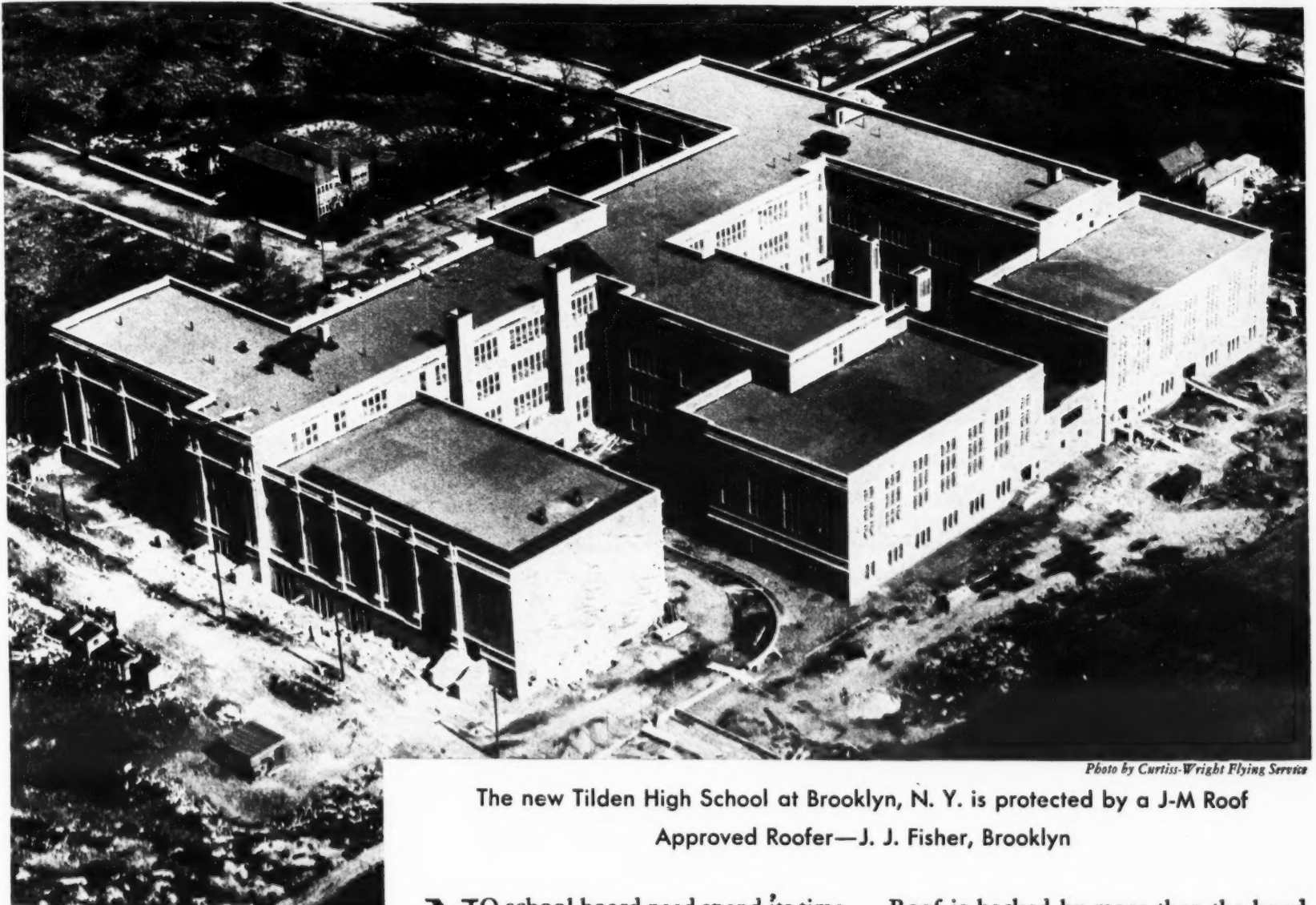
—St. Joseph, Mo. The school board has sold \$500,000 worth of 4-per-cent school bonds. The bonds average 12.7 years, and date from February 1, 1930. The present bond issue is the first lot of an issue of \$2,180,000 which the board has in hand for disposition.

—A new high-school building has been completed and occupied at Milford, Iowa. The structure which was designed as a wing of the former building, completed in 1911, was completed at a cost of \$70,000.

(Concluded on Page 98)



Let the 1950 school board  
do the next thinking about the roof . . .



*Photo by Curtiss-Wright Flying Service*

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## GENERAL SCIENCE

(Concluded from Page 96)

The building, which covers an area 100 by 100 ft., contains a gymnasium-auditorium, a commercial department, a science laboratory, and a home-economics laboratory, in addition to eight classrooms. It was planned and erected under the direction of Messrs. Beuttler & Arnold, architects, of Sioux City, Iowa.

—Longview, Tex. A new high school has been completed at a cost of \$120,000. The building contains an auditorium, a library, a gymnasium, and a domestic-science department, in addition to 22 classrooms. It was planned and erected under the supervision of E. G. Withers, architect, of Fort Worth, Tex.

—Salem, Mass. The mayor and the members of the school board recently made a tour of inspection of the city school plant, preparatory to compiling the 1930 list of estimates on repairs and equipment needed for the school year. Items of repairs include carpentry, plumbing, painting, roofing, masonry, window shades, and clocks.

—Mr. Philip Zoercher, state tax board member, speaking recently before the Indiana Schoolmen's Club, urged competitive bidding for every school-building project in the state. He cited the fact that only one type of direct-indirect ventilating system is commonly specified in building plans. Increases in school-building costs in Indiana during the past fifteen years, according to Mr. Zoercher, may be attributed to the inclusion of building features of questionable value. Plans and specifications for school buildings, said Mr. Zoercher, should designate both the unit and direct-indirect systems of heating, so that there will be plenty of competitive bidding.

—The school board of Haverhill has taken action toward a survey of the school plant, preparatory to the erection of a number of school buildings. The action followed petitions presented by representatives of the parent-teacher associations who asked for additional school-building facilities.

—The school board of Clinton, Mass., has adopted a policy of purchasing a certain amount of adjustable school furniture each year, to replace the obsolete nonadjustable type. It is expected that

only another year will be required in which to complete the installation of adjustable furniture.

—New York, N. Y. An increase of 16,000 seats in the high schools, junior high schools, and elementary schools has been made with the opening of the new school term in February. The largest number of seats, 11,000, are in high schools, with 4,000 seats in the elementary schools, and 1,000 in the junior high schools. Manhattan and Brooklyn Boroughs each have a new high school, both of which are coeducational and offer commercial courses.

—Indianapolis, Ind. The school board has ordered a reappraisal of the city school properties to eliminate the present variance in insurance policies and evaluations. It was brought out in a study of insurance premiums that some buildings are insured for as much as 500 per cent of their book value, while others are insured for a small percentage over their book value. A total of 974 insurance policies amount to \$2,300,000 on school property valued at \$12,000,000.

—Corpus Christi, Tex. The school board has refused a petition of the taxpayers, requesting a school-bond issue of \$500,000 for new buildings. The petition was lost, following a report of the auditor, who showed that not more than an issue of \$200,000 could be obtained and at the same time keep within the financial limitations.

—New York, N. Y. The board of education has adopted a new school-building program involving an expenditure of \$50,000,000. The new program provides for fewer elementary schools than formerly, but offers increased provision for trade and industrial education, continuation classes, and high schools.

There are now under construction by the school board 62 buildings, to cost \$48,902,944, and to provide sittings for 91,589 pupils. Plans in preparation represent an outlay of approximately \$25,000,000.

The proposed program will provide buildings for industrial high schools for girls and boys, and for a continuation school in the Bronx, for an industrial high school for boys in Brooklyn, and for a building for the Staten Island vocational and continuation school. There will likewise be provision for new high schools and additions to high schools.

It is expected that the total of the building program will reach close to \$53,000,000.

—Two junior high schools, the South and the North junior high schools, were dedicated at Watertown, N. Y., on December 2 and 3. The schools, which have been in use since the first of the year, represent a part of the school construction program for which a bond issue of \$995,000 was voted last year.

—Racine, Wis. The board of education is completing plans for a new junior high school and elementary school. In connection with the erection of these schools, the board made a careful study of economies in construction and maintenance to be obtained by building a joint building.

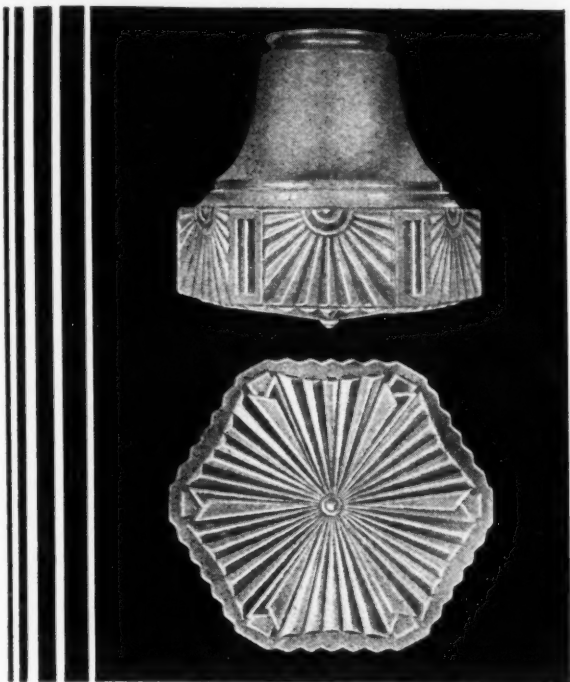
—The new Natrona County High School swimming pool, at Casper, Wyo., will be occupied in April. The new unit adjoins the high-school building on the east wing, and will be completed at a cost of \$75,000. With the erection of the final unit, a gymnasium, the building will represent a total investment of \$1,000,000.

—Lawrence, Mass. The school board has made a tour of inspection of the school plant, preparatory to taking steps toward a school-building program.

—San Benito, Tex. The school board has begun plans for a school-building program. The new program will include among other buildings, a high school, which is to cost \$250,000. A number of new buildings will be needed to meet the rapid increase in enrollment.

—The Texas teachers' association has recently adopted an extensive program for the advancement of education within the state. It includes plans for obtaining higher educational qualifications for the teaching profession, increased financial support and budgeting for schools, teacher retirement and tenure, equalization of educational opportunity for all children, adequate development of research, an extensive program for membership of teachers in the association, liberal policies for teachers' sick leaves, recognition of classroom teachers and their contributions in professional matters, and the promotion of single-salary schedules based upon equal training and experience.

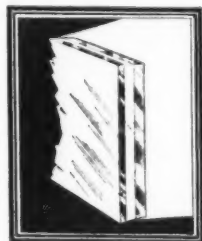




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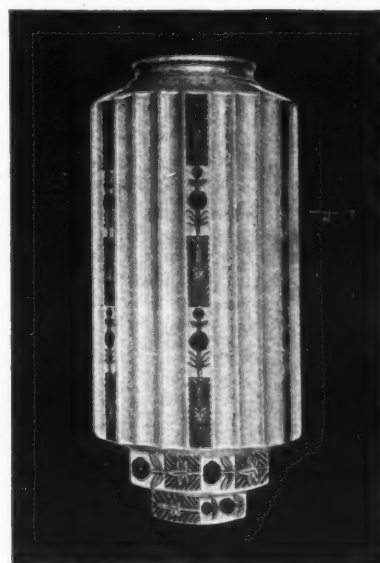
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### ORGANIZE NEW SCHOOL CABINET AT SPRINGFIELD, ILLINOIS

A professional school cabinet, comprising supervisors and principals in the schools, has been organized at Springfield, Ill. The cabinet which has been intrusted with the duty of working out major policies for the professional management of the schools, is cooperating with Supt. J. Harry Winstrom and with the administrative officers of the school system.

The cabinet was organized with two main objectives in mind. First, it seeks to effect a closer coordination of the various school units; and second, it is intended that the work of the schools shall reflect in proper proportion the interests and demands of the local community.

The regular cabinet meeting is held once each month, with the superintendent of schools in charge. All persons in the school system in charge of supervisory or advisory activities must be in attendance. The meetings are open to the general public, and the members of the board of education are given a special invitation to attend. In addition to these, the presidents of the parent-teacher association and of various civic organizations are urged to attend these meetings.

### THE LENGTH OF THE SCHOOL YEAR IN CITIES

The number of days that the city schools of the country are in session has been gradually increased. Within the past two years, 50 of about 800 cities reporting have added from 5 to 20 days to the school term, according to the U. S. Office of Education which has recently compiled information on

the subject. The State of New York has increased the term to 190 days. Even though the tendency is to lengthen the school year, comparatively few city schools are in session more than 185 or 190 days a year. In cities having a school term of ten months, there are often so many holidays that the schools are in actual session only 185 to 190 days, and in many cities having a nine months' term, the actual number of days taught is much less than 180.

The average length of the school term in the cities of the country as a whole could be greatly increased if the school month were made to consist of 20 days actual teaching, as is done in the State of Pennsylvania. In that state, in cities having a nine months' term, schools are in session 180 days, and in those cities having a ten months' term, schools are in actual session 200 days.

It is evident that a school term increased by a month would require an increased school budget, but if pupils can complete twelve years of work in less than twelve years by lengthening the school course, the additional expense would not be so great.

The all-year school is found in only a few cities, but many have organized summer schools which are in session six weeks. These schools are for pupils who have failed in a subject or two, and for those who are capable of advancing a grade. By extending the summer school to twelve weeks, and dividing the school year into quarters, it is possible to provide a program with no break, even if the pupil does not attend school for more than three quarters.

### A SUMMARY OF THE SCHOOL LAWS OF OHIO GOVERNING TRANSPORTATION

Mr. T. Howard Winters, assistant director of education for the State of Ohio, has compiled a summary of the laws governing school transportation. Under the school law, the driver of a school bus must be under bond; he must have a certificate of qualifications from the county board or the city superintendent that he is at least 18 years of age, of good character, and qualified; but a high-school student of 16 may be granted a driver's certificate. The certificate may be revoked on proof of improper conduct, or neglect of duty, and that renders void the driver's contract. The driver of a

school vehicle is liable for damages arising from his negligence, but the school board is not liable.

Additional requirements provide that the vehicle must afford the driver an unobstructed view ahead and to each side. He must bring it to a full stop before crossing the tracks of any railroad crossing, or interurban electric line, and may not proceed until certain that no car or train is approaching. All drivers must stop 10 ft. from the bus loading or unloading, and must remain there until the children are in the bus if loading, or have reached the near roadside if unloading. The driver must load and unload on the right side of the road. Transportation contracts run for a period of one year or more. A board cannot pay for liability insurance and may not be held liable for injury to pupils. The driver is liable for his own negligence, whether the bus is owned by the school district or not.

### THE COST OF PUPIL TRANSPORTATION

The sum of \$40,000,000 is being expended in this country for the transportation of pupils to and from school. This statement is made by the U. S. Office of Education, in its report for 1928. The increase from 1926 to 1928 was \$5,000,000. Over a dozen states spend more than a million dollars each for transporting pupils.

Mr. Timon Covert, who compiled the report, also says that "A statistical study of over half of the states discloses that horse-drawn vehicles for this purpose are steadily receding in favor of motor-propelled busses. In 1928 there were 42,768 motor vehicles, with only 5,961 horse-drawn carriages in over half of the states."

Closely associated with transporting pupils is the movement toward school consolidation, Mr. Covert explained. The consolidated school, it was further explained, in its most general terms is a school formed by the union of two or more schools in rural territory furnishing transportation.

In commenting on the consolidated schools, Mr. Covert made the following statement: "The total number of consolidated schools reported by 43 states is 17,004. The number for Idaho is estimated,

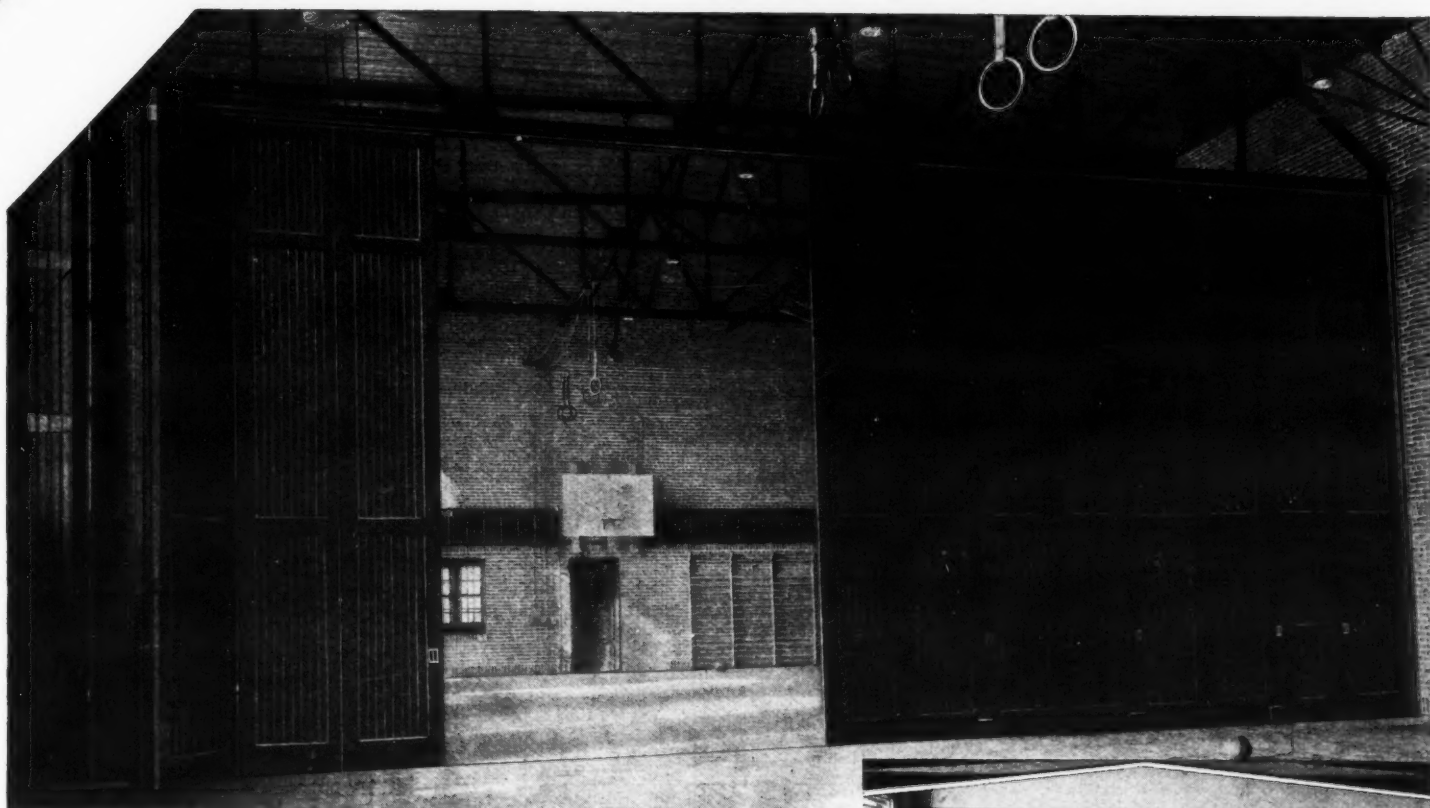
(Concluded on Page 103)



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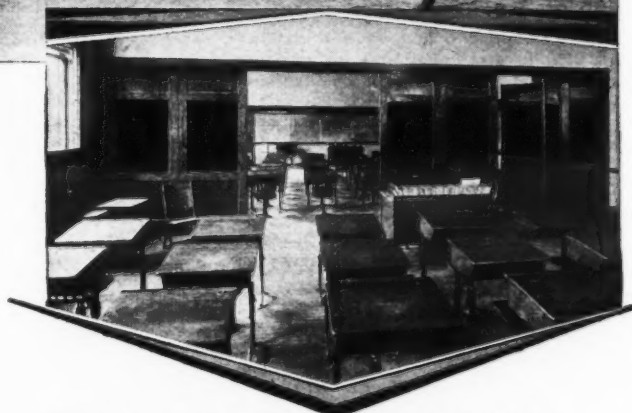
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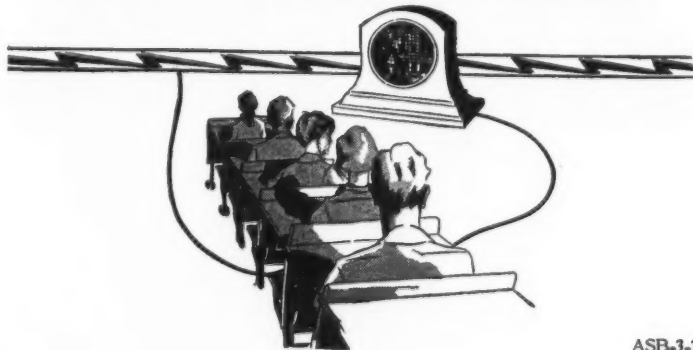
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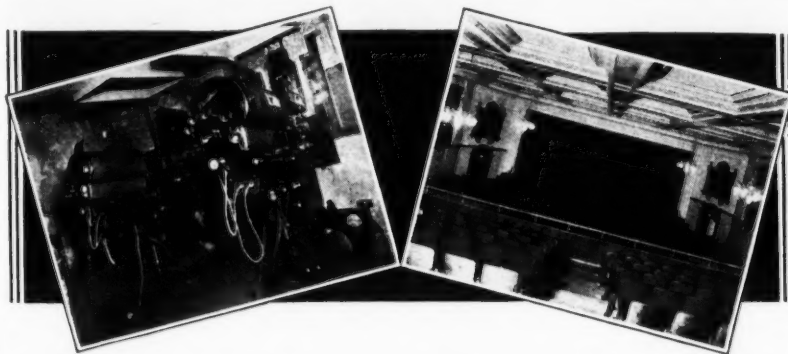
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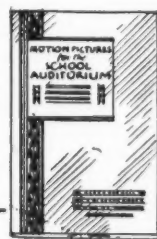
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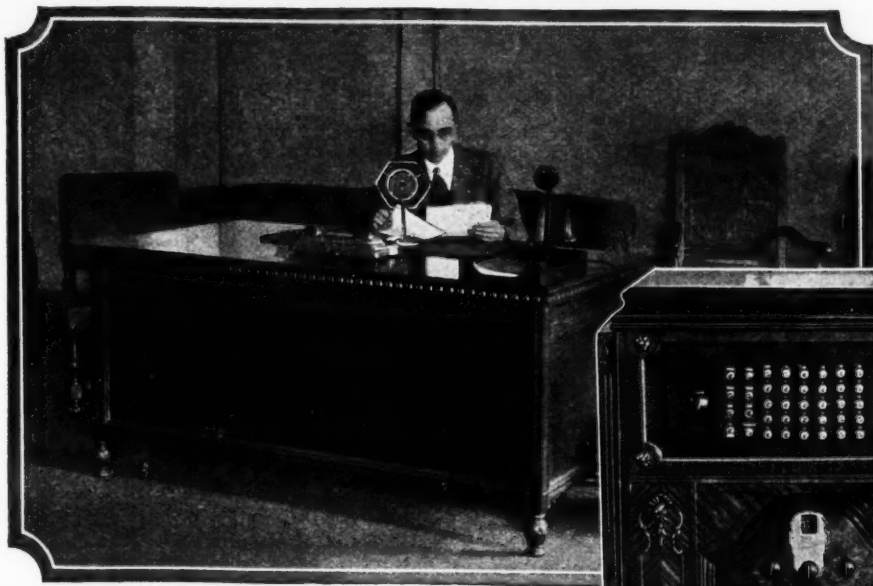
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You are naturally interested in the most efficient and economical methods in up-to-date education for your school. The Multi-Phone is not a luxury, but a necessity, which brings "The World's Best in Education" to each individual room. The schools having our unique equipment are more than satisfied.



## MULTI-PHONE

### Sends Radio . . . . Director's Voice and Phonograph Music to Every or Any Room

**Radio** With the Multi-Phone, selective programs may be sent to one or more individual rooms to interest and inspire the students. The principal selects the program suitable for individual class room work.

**Phonograph** Thousands of records are available for educational purposes which the director may use for marching, physical exercises, study or entertainment.

**Microphone** The superintendent or principal may send his voice to any room in the building where a loud speaker is installed. The microphone increases the principal's efficiency.

**Television** The Multi-Phone provides for the television impulse to be transmitted to any room when apparatus similar to loud speakers for sound reproduction shall be perfected.

**Remember** Individual rooms are controlled from this one unit—the Multi-Phone. Write now for additional information.

## MULTI-SELECTO PHONOGRAPH, INC.

1610 MONROE AVE.  
GRAND RAPIDS, MICHIGAN

(Concluded from Page 100)

the number for Kentucky is for the year 1925-26, the numbers for Maine and for Massachusetts are rural schools having two or more teachers, the number for New Jersey was reported for 1924-25, and those for New Mexico and for South Carolina are for the year 1928-29. Data for Arkansas, Connecticut, Florida, Maryland, and Utah were not available.

"Thirty-four states reported 940 consolidated schools established in 1927-28. The number, 17,004, of consolidated schools in 43 states in 1927-28 exceeds the total number attributed to all states in 1925-26 by 330. If we add the numbers reported for the five states, Arkansas, Connecticut, Florida, Maryland, and Utah in 1925-26, the total for 1927-28 becomes 18,251."

### SAFETY IN SCHOOL TRANSPORTATION

—School superintendents and boards of education throughout the state of Ohio are cooperating with Clarence J. Brown, secretary of state, in a campaign for safer and more efficient conditions on school-bus routes. Some radical measures have been placed in operation to insure better transportation conditions in the various school districts. While a large proportion of the school busses have been found to measure up to the standard set, a number of drivers have been ordered to recondition their equipment or cease operating their busses. Some of the principal hazards to be noted and eliminated are faulty brakes, obscured vision, and insufficient carrying capacity. The use of busses and private conveyances by school children while attending basketball or other sports in near-by towns has been ordered discontinued under present driving conditions.

In Crawford county, Deputy Commissioner M. B. Morrissey has reported that the conveyance of children by bus is prohibited unless at least one teacher is in charge of each vehicle. The rule "no talking to driver" will be strictly enforced during the school year.

### HOMOGENEOUS GROUPING SUCCESSFUL AT PAWTUCKET, R. I.

A plan of homogeneous grouping has been successfully employed in the schools of Pawtucket, R.

I. Under the arrangement, the groupings have been most carefully done with mathematical accuracy; however, it has been the purpose to make the plan more or less flexible in order not to work injustice in any particular case.

A rotary schedule is used, which has become most popular with both pupils and teachers. The item of fatigue is eliminated to no small extent, and opportunity in the several classes is more or less equalized. No homogeneous grouping can be completely effective with the same course of study for all groups, therefore a good deal of time has been put in by the heads of departments and the individual teachers on a scheme for providing for each group a course accurately graded to the capacity of the several groups. Success in this work should guarantee achievement of the highest goal set for effective homogeneous grouping. Under the scheme, every pupil obtains the maximum results commensurate with his natural endowment.

For the first time in the history of the schools, a scientific plan has been outlined in preparing the schedule for the year. Achievement has been noted and also capacity for learning, and when all things are considered, assignment is made to a particular group. The likes and dislikes of the individual pupil, the desires of the pupil, and of parents, and the recommendations of teachers, have been considered in the directional work. Master schedules have been made from a compilation of subjects elected by the entire student body. From this an estimate is made of the number of teachers required and eventually each pupil has been provided with an individual schedule. A good deal of time is saved in September, since teachers are given their schedules of pupils, assignments to home rooms are made, and each pupil is ready for work within thirty minutes after arrival. At the present time it is even possible to give out many of the books on the opening day of school.

The diplomas issued by the school are of three kinds, the plain diploma, the diploma with honor, and the diploma with high honor. The type of diploma is determined by a scholastic index, which mathematically divides each class into three parts. Each pupil is able to determine for himself the type of diploma he is to receive.

### INSTALL RADIO EQUIPMENT AT SHELBY, MICHIGAN

The Shelby High School, at Shelby, Mich., was recently the recipient of a complete radio equipment, the gift of Mr. Will C. Moody, of Chicago, Illinois, an alumnus of the high school. The radio was installed and has been in successful operation since December.

The equipment consists of a microphone, 12 loud-speakers for the study hall, 21 for the auditorium-gymnasium, 3 loud-speakers for the small classrooms, and 5 for the larger rooms, and a microphone placed convenient to the superintendent. A switchboard just above the receiving equipment permits the sending of programs to any room in the school. The switch is for the use of the instructor in the selection of suitable programs and for controlling the volume of sound entering any room. The entire equipment may be used to send phonograph music to any room, and the various functions are controlled by the master switchboard, which is located within easy reach of the superintendent.

Following the installation of the equipment, the high school held open house for the benefit of the school patrons and the general public. The radio equipment functioned for all educational purposes throughout the day. The broadcasting stations prepared special programs at different times of the day, and in the evening there was a special program of speaking, with Deputy State Superintendent Lloyd Goodrich in attendance.

### FINANCE AND TAXATION

—The school district of Park City, Utah, is one of the few governing units in the state which operates on a cash basis. Most of the school and municipal organizations annually borrow money on tax-anticipation warrants for current expenses. The Park City school board has conducted its business on a cash basis for the past ten years, and annually sets up interest on bank balances as an item of revenue.

The board announces that the ten-year serial bonds issued in 1928, in the amount of \$200,000, for a high school, will be one-half liquidated at the close of the present year.



## Schoolhouse Floors and Their Maintenance

James Haworth Longshore, Floor Consultant, Chicago, Ill.

No part of a school building is in more constant and more severe use than the classroom and corridor floors. The shuffling, walking, and running by many feet day by day, across the floor area, means everlasting wear and tear. The newer forms of teaching method require children to move about the classroom with greater frequency and freedom; the newer types of school organization necessitate the travel of classes from classroom to classroom, and from classroom to auditorium, or gymnasium, or shop. The floors are used more severely than ever before; wear and tear are increased; sanitation and safety hazards are multiplied. Consequently, floors demand greater attention than other parts of the school building, not only as to the material employed in the construction, but particularly as to maintenance and care.

In the face of all this, it must be said that there appears to be an astonishing lack of knowledge on the subject of floor maintenance. This is readily revealed when inquiry is made as to costs of floor treatment, and of labor and equipment involved in floor maintenance. At the same time, the fact that floors play the largest part in school sanitation, as well as in the decorative scheme of the modern school building, has in recent years come into greater recognition.

Leading school administrators, as well as editors of educational and trade publications, have turned their attention to the matter of school floor-cost data. In turn, manufacturers of floor equipment and materials, recognizing the importance of an efficient floor service, have met the situation with characteristic enterprise and energy. They have fostered research work and educational campaigns, and have stimulated a sort of floor consciousness. In brief, they have promoted floor sanitation and floor beauty.

### Types of School Executors

In entering a schoolhouse, an office building, or an institution, where unsightly and insanitary floors are found, because improper or obsolete maintenance methods are employed, it will be learned that several causes may be assigned. It may be found that the man in charge belongs to one of two types: First, he has sought earnestly for information on the subject, and, in fact, has experimented with different floor treatments. He has tried to improve his floor conditions. The result having been unsatisfactory, he has given up, and resigned himself to the old methods. And here, it may be said that, in spite of his failure, this type of man is to be commended for his desire for progress and improvement. He is at least open to new ideas.

Then, there is the second type of man, who has vegetated in his job so long that he recognizes no other practices, materials, or equipment than those used in the horse-and-buggy days. Such a man is usually a liability to the community, and frequently a nuisance besides. When the question of cost is voiced, he becomes even more fixed in his viewpoint. Again, he may be fond of Bill, the other salesman, and therefore would not change, even though he had the opportunity to get gold dollars for silver dimes. No one complains, why should he worry; his salary goes on just the same.

In strong contrast to these two types, there is the modern school executive, who is alert and circumspect, recognizing that the elements of economy and efficiency are involved in the subject of floor areas. This third and finest type stands ready to investigate the new methods and serviceable materials that may be brought to his attention.

### Ascertaining Square-Foot Costs

The floor problem is not a difficult one. Its approach involves consideration of the floor space, or more properly speaking, the square-foot area, and an estimate of the treatment involved. This treatment of floor maintenance implies such things as pails, wringers, squeegees, mops, electric floor machine, brooms, and the like. Then must be considered such items as sweeping compounds, floor oils, paint, varnish, fillers, cleaners, waxes, etc.

The next question to be considered is that of the labor employed and paid for in treating and maintaining the floors for the period of a year. There are items, too, of miscellaneous expense including light, electric power, heat, etc. The items to be reckoned with then are (1) equipment, (2) materials, (3) labor, (4) miscellaneous.

Divide the total expense by the floor area and the cost per square foot for floor treatment and maintenance cost is readily arrived at. The results obtained in the way of general appearance and sanitation must determine the economy of the method to be employed.

One school executive informed me recently that the cost of the treatment and maintenance of his floors practically amounted to nothing. The reasons he gave were that the school board employed a man to fire the boilers, police the school grounds, and do everything else, including the care of the floors. Upon learning that the man took care of 20,000 square feet of floor area, it was easy to understand why maintenance costs were practically nothing. But, the floors were not treated at all and were given very little maintenance of any kind. It would not have taken even moderately good eyesight



JAMES HAWORTH LONGSHORE,  
Floor Consultant,  
Chicago, Illinois

to have noted that the floors were covered with filth; nor very much reasoning and learning to understand that the floors were infested with pathogenic bacteria.

For the sake of the physical welfare and health of present and future generations, and the moral influences stimulated thereby, the cause of cleanliness and neatness must be upheld. In this instance, it follows that unkempt, neglected, and insanitary floors do not spell true economy. On the other hand, clean, sanitary, and attractive floors expedite the operations of the school, promote the physical welfare of the school inmates, and tend in the direction of cheerful and wholesome atmosphere. They constitute an essential factor in the operation of a school upon high and efficient standards.

## School Hygiene and Sanitation

### EYE TESTING, SCHOOL SEATING, AND LIGHTING

"Because of the close relation between vision and general health, eyesight tests should be a part of any health examination; otherwise a true estimate of a child's health is not obtained. Since cases of apparently defective vision and suspected eye disease should be treated by skilled specialists and not the examiner, the use of teachers and other nonmedical examiners is justifiable as the most practical means available for preliminary inspection."

This statement is advanced by Virna B. Johnson, supervisor of health education of the Fargo, N. Dak., schools. She further holds that:

"The testing of vision of the school children in public schools may be done by the school nurse and the physical-education teacher in each school. Defects of vision frequently rank third among physical defects found in school children in this country."

Miss Johnson calls attention to the fact that "the children should be at perfect ease when the eyesight testing is engaged in. Small children should not know that their vision is being tested, but led to think they are playing a game, and never should any child know that he cannot play the game as well as any other child. This is equally true of older pupils. They should not know, during the testing, whether they are seeing and reading correctly or not."

"Light should be sufficient and without glare. There should be not less than 15 foot-candles evenly distributed over the chart (A foot-candle meter is of great assistance in determining the amount of illumination). Whenever possible, artificial light should be used in order to keep the

illumination constant at all times, on cloudy as well as on bright days.

"Place the child in good light, but so that the light does not shine from in front or side directly into his eyes; the light should shine directly on the chart, however, without glare. The child should stand, or be seated on a chair, on the twenty-foot line, so that his eye is exactly twenty feet from the chart. If a child wears glasses, these should be removed and a test made first without glasses, followed by a test with glasses. If only one test is recorded, it should be the one *with glasses*. School children wearing glasses should have their eyes tested annually to ascertain whether their vision is corrected to normal. If the child is myopic (nearsighted,) this annual examination should be made without exception because of the frequently progressive tendency of myopia; if hyperopic (farsighted,) a biennial examination should suffice, if it is definitely known that his original correction was accurate. Not knowing this definitely, it is best to have all children wearing glasses tested annually, both with the glasses and without them."

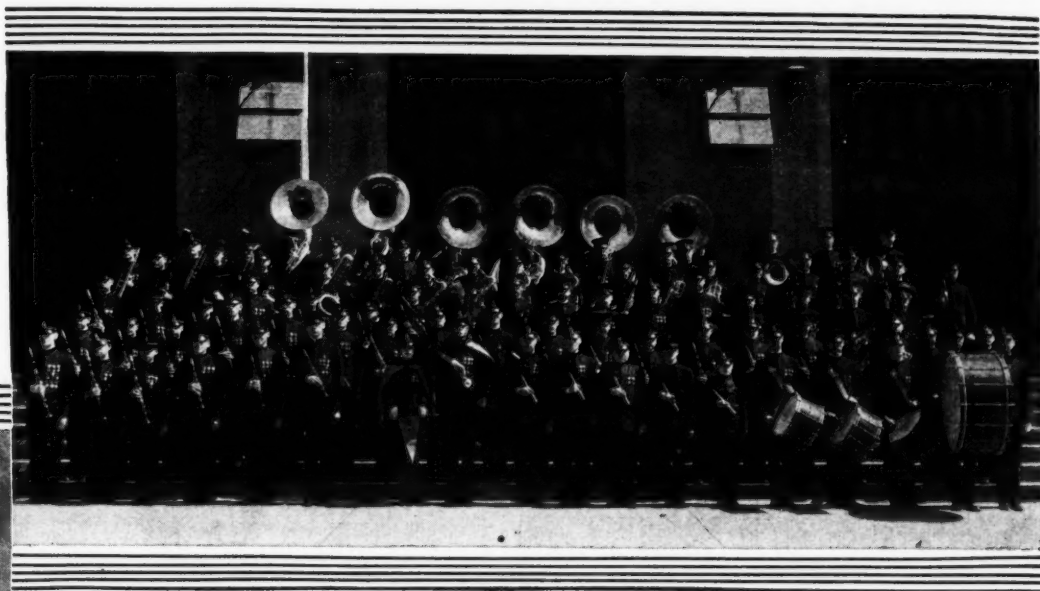
In addition to testing the child's visual acuity, it is equally important to determine whether there are any signs or symptoms which suggest eye trouble. Here Miss Johnson says:

"Frequently eye symptoms will represent only part of a picture of ill health. Some of the signs and symptoms associated with disturbances of visual acuity are: (1) Unsatisfactory test with the symbol chart; (2) holding the head in a peculiar position while reading the chart, as in some cases of astigmatism; (3) a teacher's report that, although a child can read 20/20 at the inspection, he cannot apply himself to study for a long period of time

(Continued on Page 106)



Joliet, Ill., High School Band,  
National Champions, 1926,  
1927, 1928. Below — A. R.  
McAllister, director. He says:  
"I believe Conn instruments  
and the Conn service are the  
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## This Plan Solves the School Band Problem

THE band is a recognized essential of modern school activities. It helps discipline, improves school spirit and gives boys and girls an opportunity to develop valuable musical talent. Now it's easy to give your school all of these advantages. Without experimenting, without waste of time and energy and without doubt of success.

Conn, the world's largest manufacturer of Band instruments, offers you a complete service for organizing and maintaining successful school bands. This plan has been perfected as a result of experience gained in working with hundreds of schools. It has proved its adaptability to all school requirements.

### Start with Beginners and Have a Playing Band in 60 to 90 Days

Through this plan it is easily possible to start with beginners and have a playing band in 60 to 90 days. Every detail of organizing, financing equipment, providing group instruction and maintaining interest has been worked out for you. Factory organizers co-operate with school authorities in a way that insures best results. Many outstandingly successful school bands throughout the United States were organized with the help of this service. The same help is available to you without cost and without obligation.

Perhaps the school band question is up for consideration in your school now. If not you may be sure it will be within a short time. Begin now to get the facts you need. Write us for any advice and information you may require. We will be glad to answer any questions and to mail you an interesting free book, "Band Organizing Made Easy."

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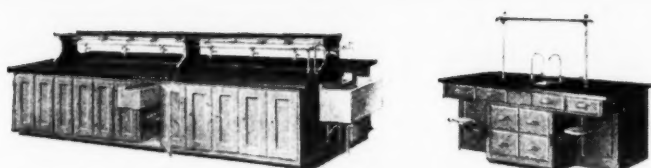
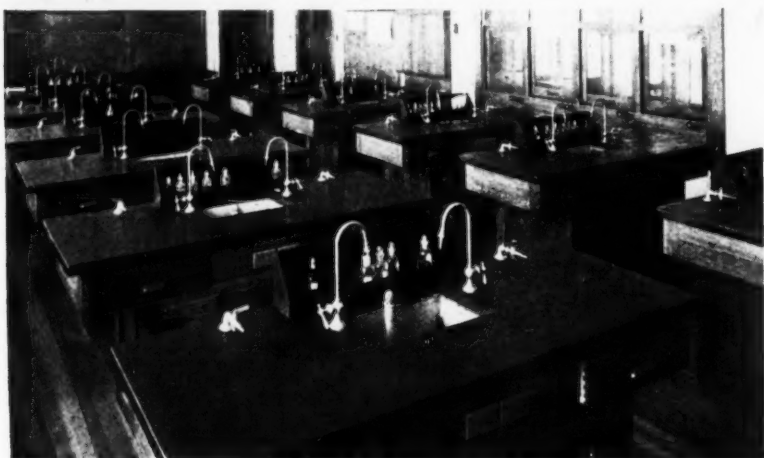
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Kewaunite is equipment of exceptionally long life. It is built to outlast the building in which it is used, even under severe service. Kewaunite costs but slightly more than any other high quality laboratory furniture. Write for complete information on this wonderful new line of fire-proof equipment.

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## Kewaunee now brings to the modern Laboratory— *Kewaunite* **Fire-Proof Laboratory Equipment**

Kewaunite is a remarkable material developed by Kewaunee engineers and used exclusively in building Kewaunite Laboratory Furniture. Kewaunite equipment cannot burn, corrode, warp, nor buckle—temperature or moisture cannot affect it. It meets all laboratory conditions where unusual fire hazards exist or where ordinances demand such protection.

Kewaunite designs offer every available space; silent operating drawers with non-corrosive interiors; adjustable shelves in cupboards; hardware specially designed for laboratory use; plumbing and electrical fittings are specially designed for laboratory service.



(Continued from Page 104)  
without suffering definite or indefinite discomforts, as from headaches, or watery eyes; (4) a history of headaches and sore eyes associated or not with ability to see distant objects better than objects held within a very few inches of the eye; (5) a history of blurring of vision, confusion in recognizing words or loss of the line in reading.

"Some of the signs and symptoms associated with diseases of the eye or its appendages are: (1) Any redness or swelling of the eyeball, or the inside of the eyelids, or the edges of the eyelids, any scaling of the lid edges or loss of lashes; (2) any discharge from the regions of the eye, especially from the inner corner of the opening between the two eyelids (this discharge may be water, tears, or pus); (3) any little lumps inside the eyelids, as in granular eyelids; (4) any whitish or grayish areas on or apparently in the eyeball; (5) any variation of the black spot (pupil) at the center or the colored part of the eyeball, that is, the pupil may be very tiny (pin point) or very large (dilated). The pupils should be the same size in both eyes, should be circular in shape, and should react equally to light."

In discussing the subject of seats and desks Miss Johnson says:

"Seats and desks should be so arranged that the working natural light comes from above or over the left shoulder. In rooms with windows on the left side only or left side and back, the seats may be placed diagonally, facing the right front corner, instead of the front of the room, thus avoiding the glare from the windows. In rooms with movable seats and desks, it is a simple matter to change the seating thus, scratching a line on the floor in order that the rows may be kept straight; cross lines may be scratched to keep the seats at the right distance apart. Where the desks are fastened to the floor, more work is required to make the change, but it is worth the effort and trouble. In this diagonal arrangement, the rows will not all be the same length, the longest ones extending toward the back corner and the shorter ones on either side. The first desks may be in a straight line, with the unevenness of rows coming at the back of the room if so desired. This diagonal arrangement permits of the same number of desks per room.

"It has been said that the eyesight affects posture and in turn, posture affects eyesight, and poor posture is so often caused by seats and desks that do not fit the child properly. Most of them are far too large. It has been found that when a child is in a seat small enough, he does not have the tendency to slide down in his seat. In order to determine whether or not a child is seated properly, a few simple rules need to be observed. The seat should be low enough, so that there is no pressure under the knee. This is true if the knee can be moved freely from side to side or there is sufficient room to slip the fingers between the seat and the fleshy part of the leg. The seat should be short enough from front to back so that there is no pressure against the back of the lower leg under the knee. There should be no elevation at the back of the seat, to cause the child to slide forward.

"The desk should be low enough to enable the child to place his arms on the desk in writing position without lifting his shoulders and so that he does not have to lean over, but may write with his back erect. The distance from the front of the desk to the pupil should be approximately the width of the child's hand. When the desk is too far from the child, he has to lean forward with his back in a curved position.

"The best kind of seats and desks are the posture seats which are movable and adjustable, with adjustable supports for the back at the waist and shoulder blades.

"It is, therefore, the duty of the teachers, school physicians, nurses, and other school administrators to see that the physical conditions in each school-room are such that eyestrain and poor posture will be reduced to a minimum."

—Elgin, Ill. A committee of citizens recently asked the board of education to call an election on the question of voting \$600,000 in bonds for the erection of needed new schoolhouses and additions.

—Tacoma, Wash. The school board has asked the voters to approve a special tax levy, of which two mills will be used for a special building fund for new schools to replace insanitary and unsafe school buildings.

### DIPHTHERIA PREVENTION IN YONKERS, NEW YORK

Dr. E. G. Littell, director of the board of education at Yonkers, N. Y., has reported upon an interesting and successful endeavor to stimulate the school principals toward securing the immunization of pupils. In Yonkers, there is a great deal of rivalry among the school principals and nurses, and it takes but a suggestion to spur them to action. Recently, when School No. 20 was first on the list with 96.4 per cent immunized, and School No. 9 was second with 96.2 per cent immunized, the principal of the former school remarked that his lead was altogether too slight and he, therefore, renewed his efforts to secure immunization of the 26 remaining pupils. Two of these received toxin-antitoxin from their own physicians; in five instances the principal asked permission to take the pupils to a clinic in another school. He was, therefore, able to raise the percentage of immunized children to 97.3, thus putting his school far in the lead. This school is composed chiefly of children of foreign-born parents.

### HYGIENE AND SANITATION

"It is better that a child lose a few days of schooling than to attempt to continue work while suffering from some physical ailment. Communicable diseases spread most easily among children, and if greater precautions were used by parents and teachers many of the epidemics which attack whole communities could be avoided." So declares a bulletin issued by the Wisconsin Medical Society. "No child should ever knowingly be exposed to contagious disease. The older the child is before being exposed to contagious disease, the less apt he is to catch it. The older the child is before having a contagious disease of childhood, the less severe, on the average, is it likely to be. The early detection of signs of children's diseases and the early exclusion from school of children showing such signs, are the best means of minimizing the communication of disease in schools and of removing the possibility that the school may act as a disease center."

—Milwaukee, Wis. The school hygiene division of the city health department gave its services to 199 schools during the past year, which was an increase over the year before.

(Concluded on Page 108)



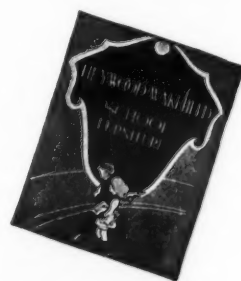
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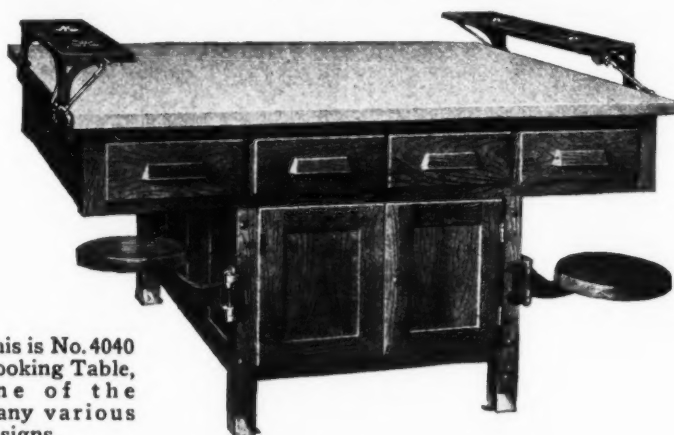
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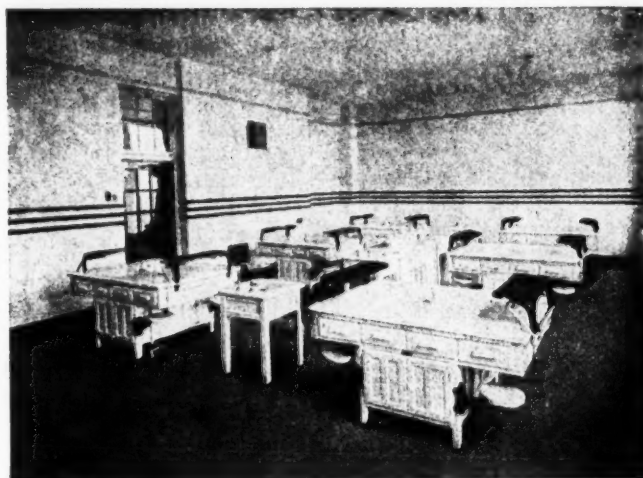


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Not only does Sheldon Company make tables durable and sturdy, but they also finish them beautifully, making attractive and inviting department. The Sheldon Company is the largest and best equipped manufacturer of domestic science furniture and can therefore give you the best service the year around. Let The Sheldon representative call on you and help you select and arrange the proper equipment for your department. This assistance will be given without cost or obligation to you.



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*Laboratory Furniture Specialists for Thirty Years*

**MUSKEGON, MICHIGAN**

(Concluded from Page 106)

crease of eight schools. Two district physicians were added to the school medical staff.

During the year, a total of 228,795 children were inspected, and of these, 747 were temporarily excluded from classes for contagious conditions. This was an improvement over the previous year, when 860 children out of a total of 236,317 were excluded. A total of 3,418 children visited the dental clinics. Oral hygiene service was extended to twenty schools and mouth examinations were made of 17,223 children. Notices sent to parents reached a total of 12,774.

Children of the public schools of Toledo, Ohio, are not kept from classes because of insufficient clothing due to the destitute condition of their parents. The board of education and the parent-teachers' club met the emergency during the past winter by providing suitable wearing material.

In January, a date was set for the collection of clothing and shoes. Parents were asked to bring such material to the school building nearest their home. Each school building became a receiving depot for the collection and the response was gratifying.

The clothing in need of repairs was taken care of in the various school buildings by volunteers from the parent-teachers' club. When renovation was necessary, the laundries and cleaning establishments performed the work without charge. At headquarters, numerous volunteers arranged the clothing as to size. A good deal of the material was of high quality and most of it was in good repair. Teachers and pupils cooperated in reporting the names of families where assistance was required.

Ninety-six per cent of the children in the public schools of Rhode Island are receiving medical and nursing inspection. A survey made discloses that 76 school physicians and 44 nurses were employed.

—Wauwatosa, Wis. At least 1,095 pupils in the local schools received toxin-antitoxin serum in January, according to Dr. E. F. Peterson, health commissioner. In that period, there were 2,021 inspections made and 129 treatments given. School physicians reported 1,101 inspections made and 50 schools visited. There were ten conferences with

faculty members and parents.

Dr. Edward Bauer, of Hammond, Ind., an authority on diseases of children, has voiced a warning against permitting highly competitive sports to drive immature bodies to the extreme of fatigue.

A barbers' "clinic" has been established at Marinette, Wis. Poor children are given hair cuts free of charge by the barbers' association of that city.

—Free dental examinations were offered 8,600 children of eighteen public and parochial schools of the near north side of Chicago, with the opening of a new dental clinic in the Kinzie School, La Salle and Ohio Streets. The clinic will be open every day, with an operating dentist in charge, assisted by two examining dentists and two dental hygienists. Free treatment will be given to children whose parents have an income of less than \$17 per week.

—The Playground and Recreation Association of America, in a recent report, has pointed out that the setting aside of recreation grounds for the use of home owners in new residential sections has assumed the proportions of a national movement. According to the report, nearly 300 subdivisions in 34 states have established such play-

grounds, and nearly 150 others are known to have such areas, but are not at present included because of incomplete data. More than 8,000 acres have been reserved for play space, and in many cases the grounds have been deeded to the municipality or township for playground use, free of all taxes.

—Physical examinations were made of 62,011 children at Milwaukee, Wis., in 1928, by health-department school physicians. Defects numbered 55,976, and 22,556 corrections of defects were recommended.

—The St. Louis, Mo., board of education has created the position of supervisor of nurses in the division of hygiene and fixed the salary at \$1,600 for the first year, with an annual increase bringing the salary for the ninth year to \$2,400.

—New York, N. Y. With 323 of its 778 pupils on the dental honor roll, Junior High School 24, Manhattan, recently won first prize in the "one hundred per cent better teeth" contest conducted by the tuberculosis committee of the Association for Improving the Condition of the Poor. The prize has been turned into a fund to be used for the correction of physical defects. In all, 1,388 east Harlem children had perfect teeth at the end of the school term.

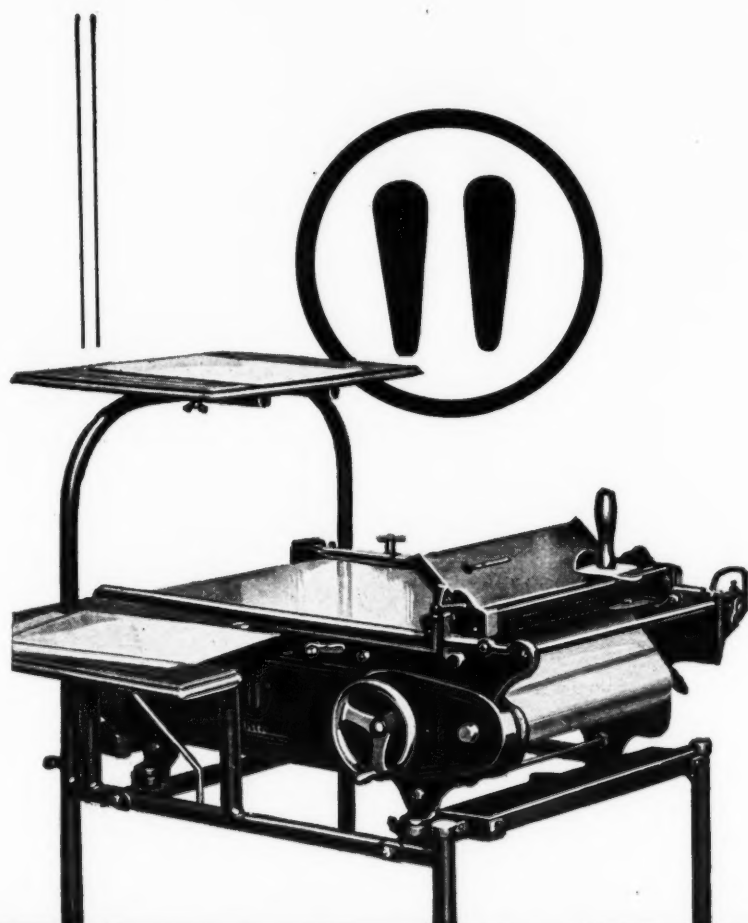
—The New York City Shorthand Teachers' Association has announced another of their radio shorthand contests, to be held in cooperation with the Bamberger Broadcasting Service of Newark, N. J., over station WOR, on Friday, March 21, eastern standard time. The contest is open to students, teachers, and stenographers, and eight gold medals will be awarded to the winners in the several events.

—Ninety per cent of the children in the graded schools of Milwaukee, Wis., suffered from dental defects during the past year, which required attention, according to Dr. Louis J. Stephan, director of oral hygiene of the local health department. This was 4 per cent less than the number of dental defects noted in school children during the previous year. Oral hygienists made examinations of 15,662 children and found 14,168 in need of treatment.

### SCHOOL DISCIPLINE

All discipline is according to the usual conception of a more or less negative character. Its rules are formulated in order to prevent this or that; it consists of a series of prohibitions forbidding various courses of action which stand in the way of the attainment of the desired end. The discipline administered in a school, however, may and should be made more of a positive force, a force seeking not merely to prohibit, to repress, to suppress, although it sometimes has to do all of these things, but rather to encourage, to guide, to adjust.—Frank R. Blake, Principal, Baltimore City College.





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## AMONG BOARDS OF EDUCATION

—Eugene F. Hendricks was elected president of the board of education of Reading, Pa. Warren Romig was chosen vice-president.

—Minneapolis, Minn. The special committee on patents for shop devices has presented a report to the school board, in which it recommends the continuance of the present practice of permitting employees to patent their own devices, at their own expense. Under the arrangement, the board is permitted to make and use any patented article, without the payment of a royalty. It was suggested that in the case of nonpatented devices or articles, requests from outside agencies for such article be refused. Whenever practicable, blue prints and specifications will be offered to the requesting agency without compensation.

—St. Louis, Mo. Upon the recommendation of the acting commissioner of school buildings, the school board has raised the salary of the superintendent of custodians from \$4,500 to \$5,000 per annum, and that of the assistant to the superintendent, from \$2,700 to \$3,600 per annum.

—Racine, Wis. The board of aldermen has denied a request of the school board for an appropriation of \$16,500 to pay architects for the plans of the proposed combined elementary and junior high school. It was suggested that the school board complete plans for an elementary school first, inasmuch as it is not considered necessary to combine the plans for the two buildings at this time.

—Tacoma, Wash. The school board has taken action abandoning the present Irving School building. An election has been called to vote on an additional 3-mill levy for school purposes.

—Rockford, Ill. A redistricting of the school system was carried out at the opening of the new semester, with the occupation of the new Walsh School. The change caused the transfer of 650 elementary-school pupils on the west side and relieved the congestion in three schools. A total of 446 pupils were transferred to the Walsh School, with the remaining pupils distributed among the four schools in the district.

—Norwood, Ohio. The school board has been asked to establish a lunchroom in the Sharpsburg

School. Under the proposed arrangement, the board will furnish the equipment, and the mothers' club will provide the service. Lunches are to be sold at the small price of fifteen cents.

—Terre Haute, Ind. A special committee has undertaken the reorganization of the janitorial staff and the working out of plans for deductions in expenses of the various departments of the school system. With the reorganization of the staff, it will be possible to eliminate the cost for extra janitor service in the school libraries. Under the former plan, high-school and normal-school students were employed for janitorial service in the school libraries.

—Newton, Mass. The school board has taken steps toward the erection of the Dickinson Memorial Stadium, with the adoption of a resolution asking the legislature for permission to use gate receipts from games for financing the structure.

Under the proposed plan, a stadium commission will be appointed to handle the income from the athletic contests on the field. The construction of the stadium would be financed originally by bonds issued to the public by the Dickinson Memorial trustees. The bonds would be retired as rapidly as the income from receipts permits.

—Maywood, Ill. The superior court has issued an injunction restraining the school board of Proviso township from proceeding with the erection of a new school, for which the taxpayers voted last June. The injunction was asked by a taxpayer of Melrose Park, who charged that the bonds were in excess of the indebtedness permitted by law. The court held that the tax-anticipation warrants, due to the nonreceipt of the 1928 taxes, constituted an indebtedness the same as bonds, and decided against the board. The present school building is very much overcrowded and it is expected that many students will be denied admittance, or that half-time classes will be necessary next fall.

—Seymour, Wis. A special election was held recently to determine whether the city should create a school board of five members. At present, the board is composed of three members, each holding office three years. Under the new state law, a board of five would be elected at the April elec-

tion. The city treasurer would become the school treasurer.

—Jackson, Mich. Attorney Frank Blackman has been asked to determine whether the school board of Vandercook Lake, a suburb, may appeal a verdict of \$5,000 given Floyd Wilbur, a deposed superintendent, as back salary. A petition presented by ten taxpayers, claims that charges made by members of the board against Wilbur, have not been proved, and that an appeal would mean only an added expense.

—Superior, Wis. The school board has sustained the action of Miss Lulu Pickett, superintendent of schools, who dismissed a high-school teacher because she married during the holidays.

—Detroit, Mich. The school board has sent out notices to the effect that delays in fulfilling school-construction contracts will not be countenanced in the future. It was charged by one of the members that needless delays in schoolwork had been allowed which might have been avoided by the contractors. All contractors will be held to their contracts, except in cases where overtime work does not allow the work to be completed on time.

—Wilmington, Ohio. The school board has taken precautions to prevent a repetition of the bus accident which occurred recently in northern Ohio, and which claimed the lives of a number of children. One of the pupils riding in the bus is regularly delegated to stand at the railroad crossing until the bus has passed and has arrived safely on the opposite side. It is expected that the plan will be used on other bus routes as a measure of safety to pupils.

—Davenport, Iowa. Upon the recommendation of Supt. F. L. Smart, the school board has substituted books for medals to be awarded honor students in the 8A grades of the city schools. School-board members believe that the pupils have wearied of the medal awards and that books would be more appropriate.

—Mr. E. L. Lillich of Pueblo, Colo., has brought suit against the school board for damages of \$500, charging that he was dismissed from his position as principal while under contract, and without a proper hearing.



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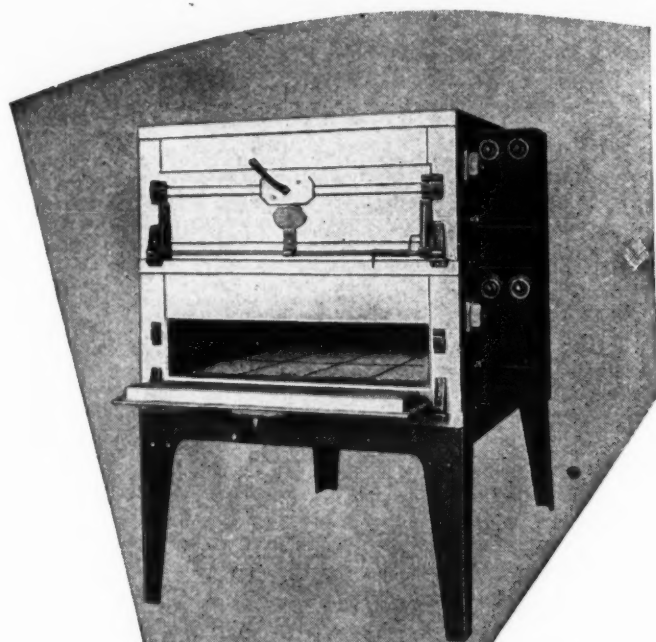
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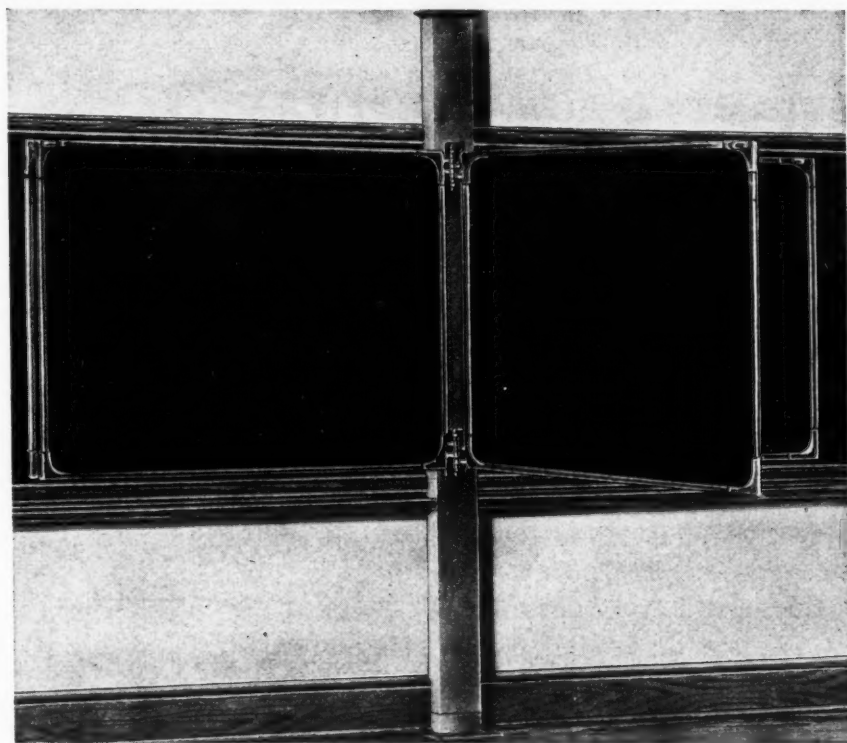
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## School-Board News

—Washington, D. C. Under a new rule of the board of education, public-school matrons employed by parent-teacher associations will be removed from the service. It seems that matrons had been employed by parent-teacher groups for two schools in a certain section of the city. The board has now ruled that such employment by outside agencies cannot be permitted. A complaint that women teachers are not on duty at all hours of the day was met by a recommendation of Supt. F. W. Ballou that one or more teachers be in charge of the school grounds from early morning until the time the children return home.

—Port Washington, Wis. The common council has been asked to approve a proposed ordinance, modifying the method of electing the school board. In previous years, the school board was elected at each annual school meeting. Adoption of the new ordinance would change it to the spring election and would adjust all present difficulties caused by the indefiniteness of the laws.

—Marshalltown, Iowa. The school board has adopted a rule, providing that school gymnasiums may not be used by outside agencies for the purpose of conducting contests for which admission is charged. It was the opinion of the board members that school property should not be rented where there was a possibility of damage, rowdyism, or vandalism.

—Traverse City, Mich. Upon the recommendation of Supt. C. L. Poor, the school board has adopted a rule, which provides that students who complete the four years of high school with sufficient credits for graduation, but with insufficient honor points, shall receive a "D" diploma and be denied recommendation to college. Under the rule, diplomas will be given only to those who have

earned a minimum of 160 hours of credit and a minimum of four honor points. The rule which goes into effect in June, 1930, provides for a graduated scale of honor points for the period from 1930 to and including 1933.

—Toledo, Ohio. Supt. Charles S. Meek recently prohibited high-school students from using either private automobiles or commercial busses on a basketball trip from Toledo to Fostoria. The edict of Superintendent Meek was the result of the many bus accidents which have occurred during the past few months.

—New Haven, Conn. The recreation commission has asked the school board to reduce the rental fee for the use of school buildings. It was held that the charge of \$10.50 is too high, and that the cost of such use may be reduced by having the members of the commission take care of the custodial work.

—Haverhill, Mass. The school board has voted to organize an advisory board to have supervisory control over athletics. The council, which will comprise officers from the girls' and boys' athletic leagues, the superintendent of schools, the principal of the high school, and the director of athletics, will have charge of athletics until the present law is changed.

—Toledo, Ohio. The school board and city council have taken up the matter of the annexation of Point Place to the Toledo district. It was pointed out that the annexation would add to the burden of the school district and would hamper the school construction program. If annexed, the Toledo board would be compelled to assume a bonded debt of \$345,000. The difference in tax rate, moreover, would result in an annual deficit of \$56,000 in the Toledo district. The estimated expense of operation

would amount annually to \$112,000, leaving a deficit of \$56,800.

—Pittsburgh, Pa. The school board has contemplated taking legal action against certain electrical contractors of the city, charging them with a conspiracy to defeat the purpose of the free competitive bidding for contract jobs. As a public body, the school board may not make a cost-plus contract, but must take bids. It is the opinion of the members that they are not getting honest bids from the contractors.

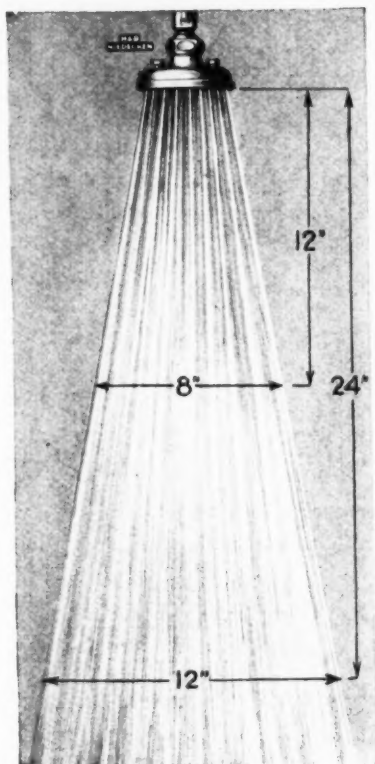
—Pottsville, Pa. The school board has begun a study of the method of placing fire insurance on the school, to determine whether the straight insurance, or the 80 per cent plan, is most effective. The National Board of Fire Underwriters has been invited to send a representative to conduct a survey of the situation and to make a report to the board.

—Oberlin, Ohio. The local exchange club has adopted a resolution calling upon boards of education in Lorain county to take such precautions as may be necessary for safe driving of school busses. It was pointed out that school boards have the power to make safety regulations for drivers of school busses.

—State Director of Education J. L. Clifton recently called a meeting of Ohio school superintendents for the purpose of discussing problems of pupil adjustment. Mr. Clifton pointed out that 25 per cent of the freshmen in the educational institutions fail in one or more subjects in the first year of their college work. About 7 per cent of the pupils entering the first grade finally enter college, and only 59 per cent of the eighth-grade students graduate from the high school.

—LaRue, Ohio. The school board has adopted new regulations in the direction of safety for school busses. A schoolboy has been assigned by each bus to leave the bus at all crossings. In the event that no train is in sight, he must signal the bus driver from the opposite side of the tracks. The board has employed a watchman to stand guard at the railroad crossing during the hours that six of the school busses cross the tracks. School-bus drivers are required to wait for the signal before crossing the railroad tracks.



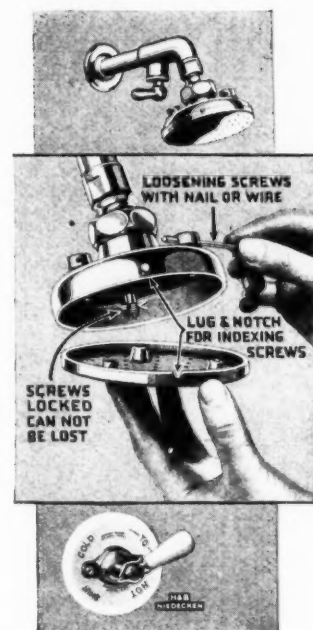


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—Nashville, Tenn. Mr. C. R. Clements, Mr. Paul Cohn, Mr. J. W. Jakes, and Mr. R. P. Shelton, four members of the school board, have resigned in opposition to the will of the mayor, who has intimated that he will eliminate the twelve months' school term. The twelve months' school year, which was inaugurated under Supt. H. C. Weber, has been in operation in Nashville for the past five years. Mr. Weber resigned at the last meeting of the school board, following the election of Mr. Albert Hill as president. Mr. Hill also is opposed to the twelve months' plan.

—Chicago, Ill. A change in the system of collecting summer-school tuition by high-school principals has been proposed by Pres. H. W. Caldwell of the school board. The action has resulted from the failure of a school head to give an accounting of the \$12,000 collected last July.

—Fort Wayne, Ind. The school board has adopted a new vacation schedule, calling for shorter vacations for teachers and pupils in the schools. The new schedule, which will be put into effect next year, calls for 186 days of school, as compared with 179 days of school this year. It was felt that the spring vacation is necessary for the health of the pupils and teachers to break the second term of work.

—Minneapolis, Minn. The junk peddlers' association, at a recent meeting of the school board, intimated that they would not withdraw their opposition to paper sales in the public schools. The association is planning a coupon system which aims to give the schools more money on paper sales. Under the plan, the peddler would buy coupon books from school principals, or the parent-teacher association, and use these coupons in buying paper from housewives. The coupons would be good for old metal, scrap iron, old cars, and magazines.

—La Crosse, Wis. A reorganization of the committees of the school board has been effected. The number of committees has been reduced from eight to four for greater efficiency in the work. The four committees as at present organized are finance, buildings and grounds, instruction, and supplies and equipment.

—The board of education of Los Angeles, Calif.,

carries liability insurance in the state compensation insurance fund, to insure against accidents those employees who may be injured in the line of duty. A special blank, which may be obtained from the secretary's department, is filed in all cases of accidents to school employees. Principals are required to submit a report to the secretary's department within 24 hours after an accident, giving all the facts necessary.

—Oshkosh, Wis. In order to comply with the legal requirements for disbursing school money, the school board has changed its procedure to permit the board's approval of expenditures before contracts are awarded. The new order does not apply to "emergency" requisitions, which are handled through the finance committee. An emergency fund of \$1,000 has been created, from which the finance committee is permitted to make expenditures as it may deem necessary.

—La Salle, Ill. The school board has adopted a resolution, calling for the selection of new teachers in the order in which their applications are filed. Under the new ruling, all applicants for teaching positions must be residents of La Salle and must be graduates of the junior college or its equivalent, and must be in possession of a first-grade certificate.

—Easthampton, Mass. At a special meeting of

#### WHAT IS A SUPERINTENDENT OF SCHOOLS?

A superintendent of schools is a builder, carpenter, mason, steamfitter, dressmaker, janitor, attendance officer, athlete, school teacher, social director, physician, politician, diplomat, etc. As head of the school system, he must pass judgment upon every phase of work connected with the maintenance and expansion of the schools and upon every activity inaugurated and conducted for the benefit of the children. Our superintendent, hence, is a composite being.—Samuel P. Abelow.

the town voters, a motion to increase the school board from three to six members was lost. The election showed 35 in favor of the change, and 83 opposed.

—Lincoln, R. I. The school board has suggested that one of the janitors in the school be assigned as traffic officer to insure the safety of pupils who must cross a busy street on their way to and from school.

—Sandusky, Ohio. The school board has purchased 9 motion-picture projectors for use in educational work in the 6 schools. A complete radio receiving equipment has been installed in the schools. Under the plan, a single instructor may address several classes, or the entire school. The junior high school is so equipped that the principal in his office may address one class, or an entire student body, each in its respective room, without moving from his office. A similar arrangement places the superintendent in touch with all the schools of the city.

—Madison, Wis. The school board has been asked to approve a recommendation of Supt. R. W. Bardwell, calling for the housing of the offices of the school board, the superintendent of schools, the business office, and the supervisors in the proposed new city hall. It is estimated that the school department will require 27,000 sq. ft. of floor space to accommodate all its various departments. Mr. Bardwell pointed out that concentration of all departments under one roof would result in greater efficiency in administration.

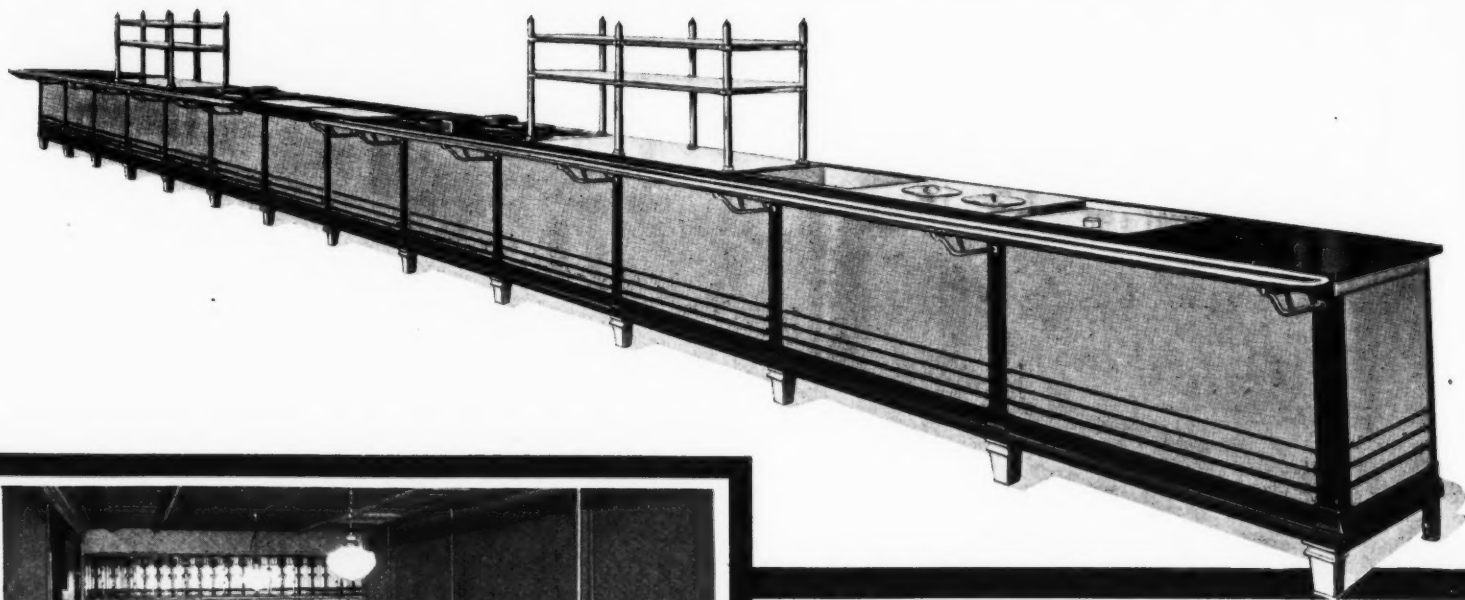
—The school board of Pittsfield, Mass., has voted in opposition to the proposed law seeking to raise the compulsory school age from 14 to 15 years. Mr. M. K. Crooks pointed to the disadvantages of trying to hold boys in school, when their attitudes toward study, or the economic condition in the home, made it advisable that they go to work.

—Toledo, Ohio. The school board has approved a rule barring spectators from basketball games in elementary schools. The pupils had previously asked permission to sell tickets to such games, but such permission was withheld pending a decision of the board.



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Front and end panels are heavy gauge Armco iron with white porcelain enamel finish, or Duco finish in any desired color. Trim is drawn steel ornamental molding finished in your choice of Duco. Legs are adjustable sanitary type, porcelain enamel finish.

Counter is strongly made with  $1\frac{1}{2}$ " x  $1\frac{1}{2}$ " x  $\frac{1}{8}$ " angle steel frame. Interior finished in aluminum bronze. Rear may be entirely inclosed, if desired, sliding doors on roller track giving access to interior.

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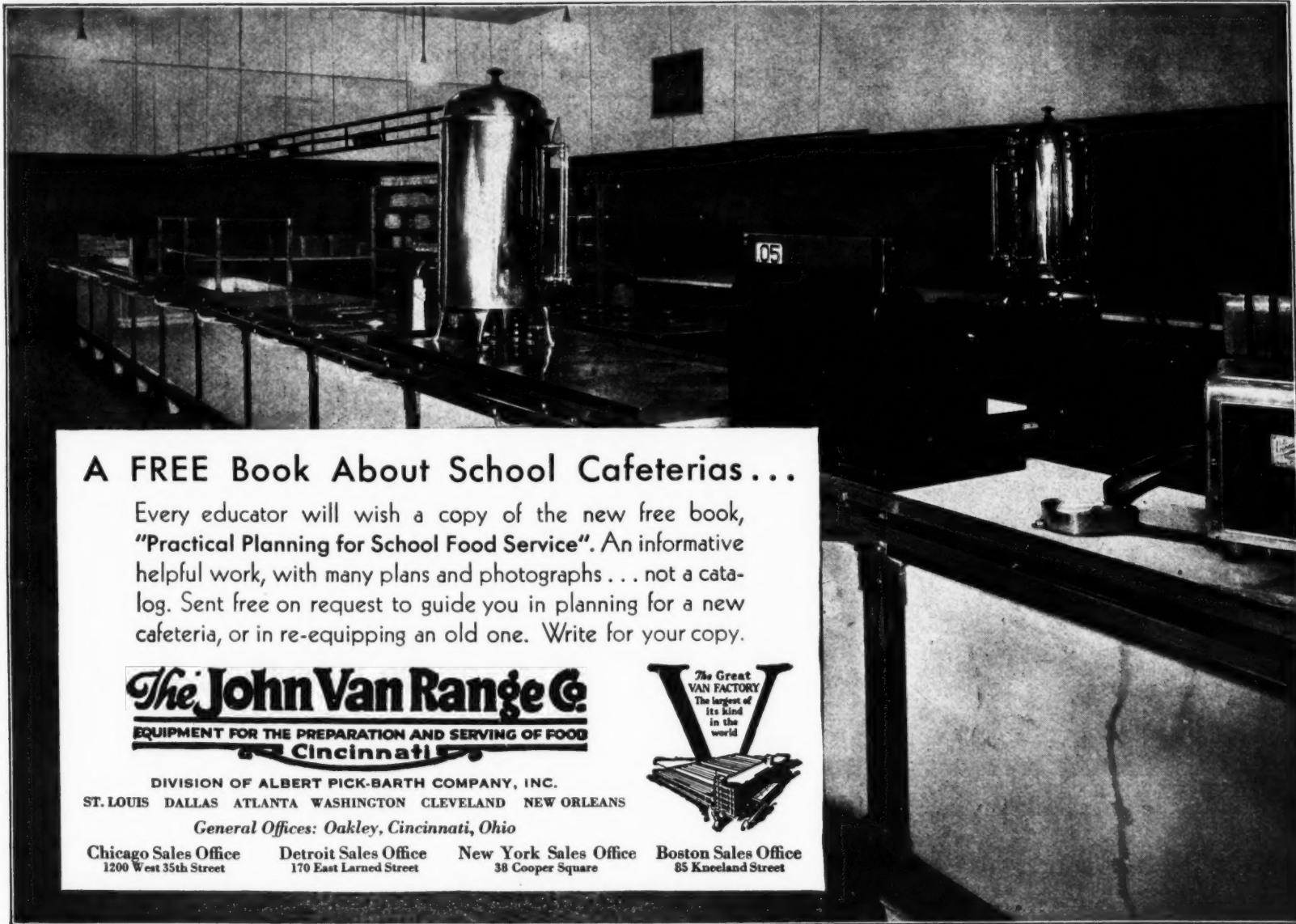
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## NEW RULES & REGULATIONS

### ADOPT NEW RULES FOR SCHOOL-BUS DRIVERS

Upon the suggestion of W. Stewart Fitzgerald, the school board of Princess Anne, Md., has adopted new rules governing the drivers of school busses, which regulates their qualifications, type of busses, operating rules, conduct, and schedules. The rules which went into effect on January 14, are as follows:

#### I. Bus Drivers

- A. *Qualifications:*
1. Morally clean.
  2. Physically fit.
  3. Aware of responsibility (a) to children; (b) to county.
  4. Loyal.
  5. Conscientious in discharge of duties.
  6. Temperate.
  7. Possessed of good judgment.

#### II. Busses

- A. *Specifications:*
1. Safe.
    - a) Good brakes at all times.
    - b) Low center of gravity.
    - c) Reliable motor.
    - d) Good tires.
    - e) Unobstructed vision for the drivers.
  2. Comfortable.
    - a) Seats satisfactory.
    - b) Well ventilated, (careful of exhaust fumes).

#### III. Operating Rules

- A. *Speed:*
1. Not to exceed 30 miles per hour on improved highways. On ordinary county roads, a speed conducive to the safety and comfort of pupils.
- B. *Railroad Crossings:*
1. Drivers must approach crossings at such speed that vehicles can be brought to a full stop almost instantly.
  2. At crossings protected by watchmen, drivers shall cross only on signal from watchman. At unprotected crossings and those protected by lights, driver shall

cross only when he is sure no train is near. If driver has stopped bus to allow a train to pass, he is not to proceed until he is sure no train is approaching in the opposite direction.

#### C. *Passing Other Vehicles:*

1. Extreme caution to be exercised. At no time shall speed be such as to make it dangerous if forced off the road.

#### D. *Loading and Unloading:*

1. Pupils shall be taken on and discharged on the extreme right side of road.
2. Driver shall see that road is clear before allowing children to leave bus.
3. Driver shall not allow children to board bus until it has come to a full stop.
4. Children shall never be allowed to ride on running board or steps.

#### IV. Conduct

1. Pupils shall conduct themselves properly when riding on school busses.
2. Driver shall have authority to maintain discipline.
3. In case of repeated disorder, driver must first notify parents. If disorder continues after due notice to parents, driver may refuse to allow a disorderly pupil to ride on his bus, in which case he shall immediately report the circumstances necessitating this action to the county superintendent. In case a child is suspended for disorderly conduct, the driver may require parent and child to appear before the county superintendent before again permitting him to ride on his bus.

#### V. Schedules

1. Pupils must not be brought to school too early simply to give the driver more time for other things. 8:45 a.m. is considered the best time to arrive at school.
2. Weather and roads permitting, busses should arrive at each stop at the same time each day.
3. Pupils and parents are entitled to know the approximate time the bus leaves their stop.
4. A driver should wait for a child if it is in sight and is making an effort to reach the bus as rapidly as possible.

### NEW RULES GOVERNING THE HEALTH OF TEACHERS

The school board of Rochester, Minn., has adopted a new rule, requiring a satisfactory annual physical examination of all employees in the schools. The examinations will be conducted at

stated times as the board may direct, and renewal of contract will depend upon the result of such physical examination.

It is further provided that any person who has not previously been employed in the schools must present a health certificate acceptable to the board, before entering upon his or her duties.

The Mayo Clinic has kindly consented to conduct these examinations free of charge. However, any teacher who prefers, may consult another physician, provided the proper blank is obtained from the superintendent of schools. The examination covers blood pressure, blood count, hemoglobin, heart, lungs, urinalysis, eye, ear, nose, and throat.

Teachers have until March 15 to comply with the rule. No contract will be offered to any teacher who does not present a satisfactory health certificate to the superintendent.

### RULES GOVERNING HIGH-SCHOOL DANCES

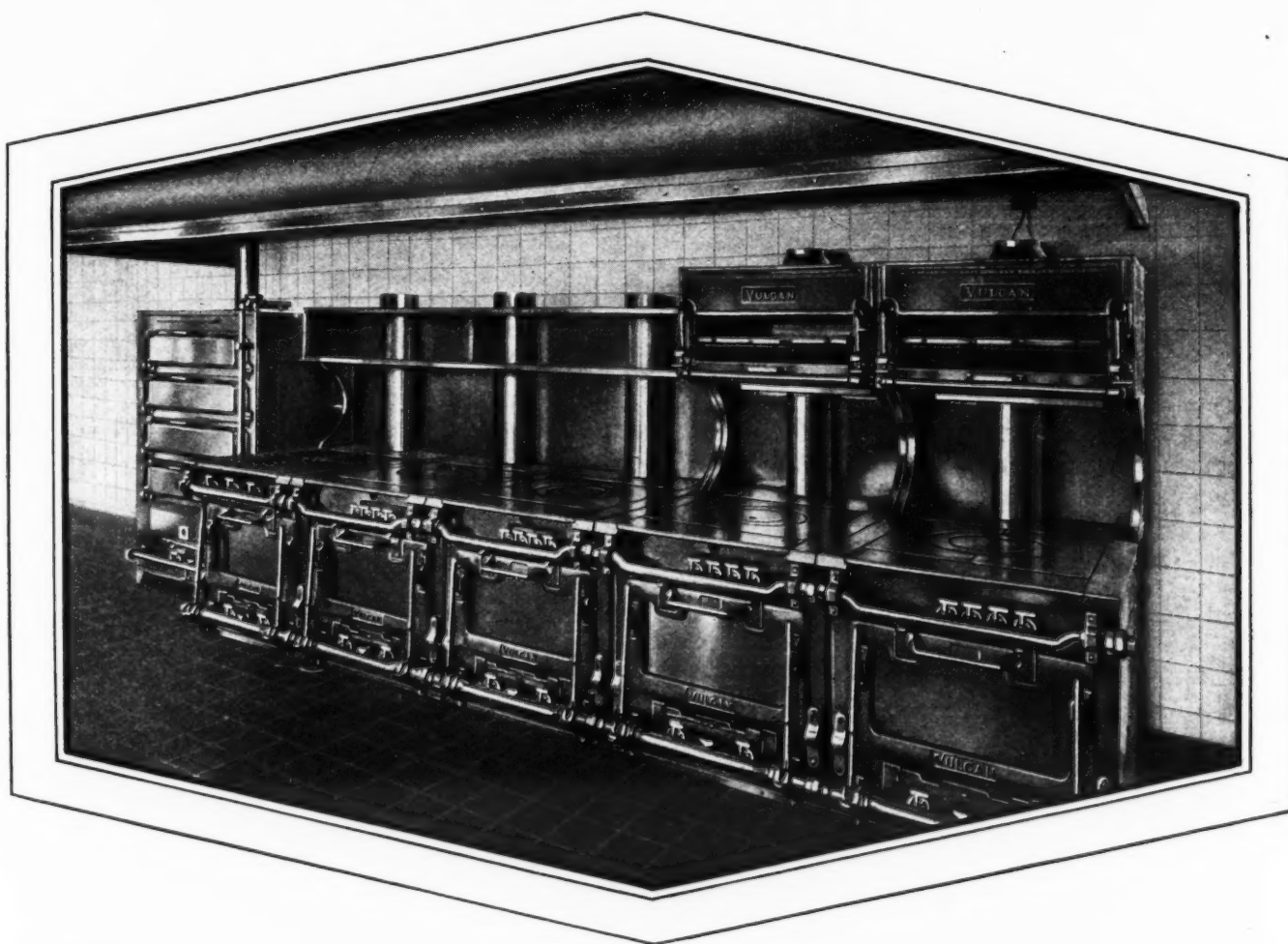
The Racine, Wis., school board has adopted rules to govern high-school dances. Under the rules, dances are allowed only in the senior high schools, under the regulations prescribed by the board. Not more than one matinee dance may be held in any one month, and such dances must be held between the closing hour of school and 5:30 o'clock in the afternoon. The rules read as follows:

1. Dances are permitted only in the senior high schools under the regulations prescribed by the board of education.
2. Dances under the auspices of the high schools may be held only in high-school buildings.
3. Dancing is not permitted at any party, or social event, other than the dances provided for in the regulations.
4. Dances may be held only on nights preceding days on which the schools are not in session.
5. Under no circumstances will any persons, not members of the school, be permitted to attend any dance, with the exception of parents of students, who are permitted to visit dances.
6. Clothes worn at school dances must be moderate in style and cost. Evening dress will not be allowed.

(Concluded on Page 118)



## Reduce operating and upkeep costs with Vulcan equipment in Monel Metal



The ever increasing use of Vulcan Monel Metal heavy duty cooking equipment is the result of well established advantages.

The superior combustion provided by the Vulcan burner, and the complete utilization of heat in the All Hot Top Vulcan range reduce fuel costs.

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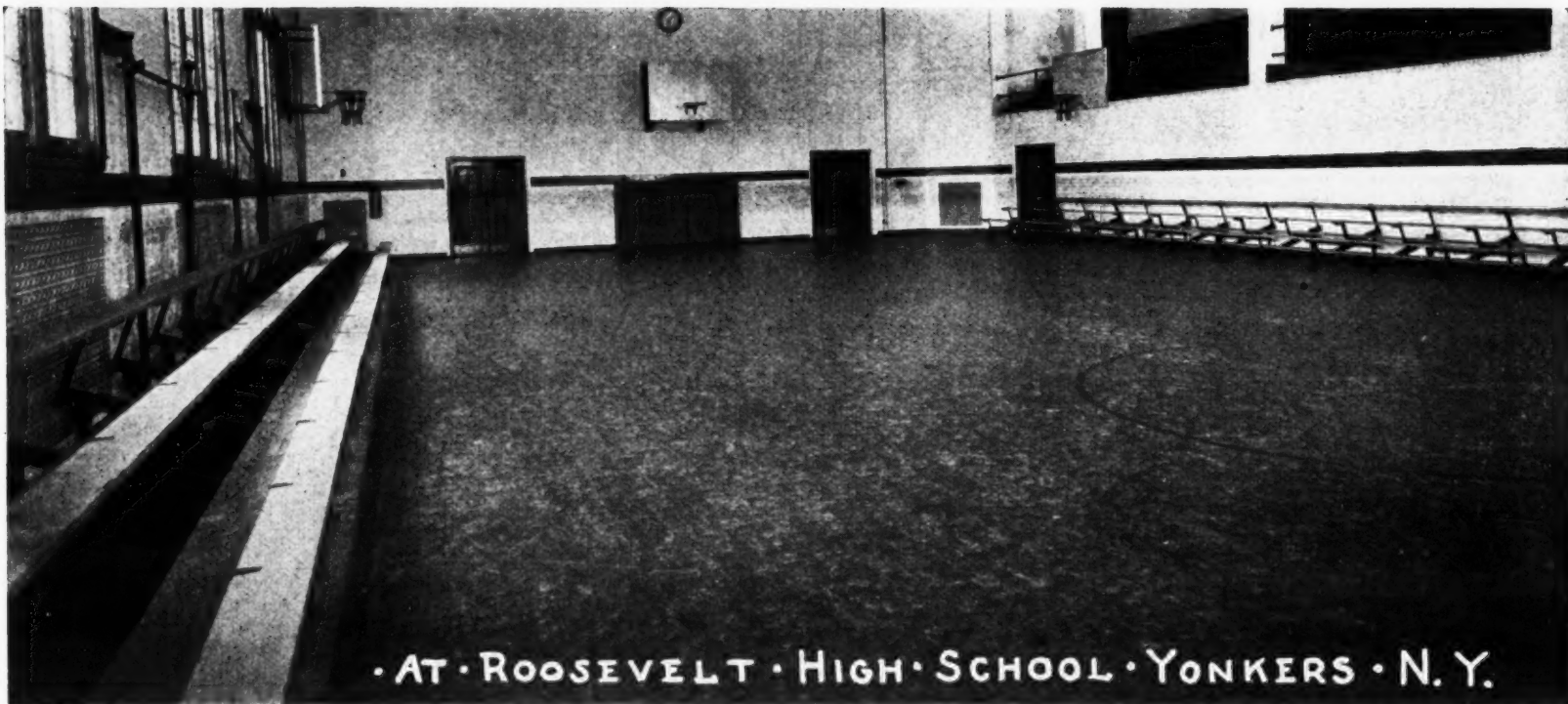
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(Concluded from Page 116)

7. Assurance that not fewer than four parents, who will act as patrons or chaperons, will be present, must be obtained in writing and supplied to the principal at least three days before the dance is held.

8. In addition to the parents, either the principal, or some faculty adviser, or advisers, approved by him, must be present.

9. The patrons, or chaperons, including the faculty representative, will act as the judges in the selection of music and the kinds or types of dances to be allowed.

10. The total expense for music, refreshments, and decorations must not exceed 25 cents per person.

11. Additional regulations which do not conflict with the regulations set forth may be made by the principals and teachers of either high school.

### RULES GOVERNING JANITORS' DUTIES AT SANGER, CALIFORNIA

The school board of Sanger, California, has adopted new rules to govern the duties and responsibilities of the janitors in the respective schools. The rules read as follows:

Sec. 1. Janitors shall arrive at the school building not later than 7 a.m., on school days; earlier if weather demands. They shall arrange their lunch hour in such a manner that will permit their being at the building during the noon hour.

Sec. 2. Janitors shall be under the immediate direction of their principals for detailed routine duties, and to the superintendent for building policies. They shall not assume or exercise any authority over pupils, except by special order, but shall report any violation of the rules, either of the state or district, on the part of the pupils that may come to their attention.

Sec. 3. Janitors shall be responsible for the opening and closing of the buildings, keeping them and their surroundings clean, neat, and in a sanitary condition. Each room shall be dusted with a sanitary dust cloth each morning before school.

Sec. 4. They shall sweep all schoolrooms each day, after school. Such sweeping shall not inter-

fere with the teachers' work. Wastepaper and other refuse shall be burned daily if the weather permits. All inkwells on the top of desks shall be filled at noon.

Sec. 5. Blackboards shall be cleaned with a chemically treated cloth twice a week, and oftener if necessary. Water should not be used upon the boards.

Sec. 6. Erasers shall be cleaned once each week, and at other times as teachers may require. Such a request shall be by the teacher, causing the erasers to be put into her wastepaper basket and left on the top of her desk at noon.

Sec. 7. They shall thoroughly wash out the drinking fountains, basins, sinks, toilet bowls, and shall scrub floors weekly, keep the toilets clean, and see that the bowls have been flushed at the close of all intermissions.

Sec. 8. They shall mow the lawns twice each week after school hours, or during the intermissions. All grass around the building, or on the school grounds, shall be kept down and not permitted to go for long stretches before cutting.

Sec. 9. All classrooms shall be kept as near 66 to 68 degrees as possible.

Sec. 10. Electric-light fixtures must be kept clean and burned-out lamps should be replaced.

Sec. 11. Janitors shall wash the woodwork, windowsills, doors, and door jambs during the summer vacation, and at other times when needed. Keep the desks clean and varnish them when requested by the superintendent. Wash the inkwells twice a year. Wash the windows inside and out during the summer vacation, and at such other times as needed.

Sec. 12. Clean the furnace and empty the boilers for the summer. In summer, attend to the lawn, flowers, trees, and keep the weeds down.

Sec. 13. Report to the clerk of the board all delinquency of school property during the summer.

Sec. 14. Windows and doors must be kept in repair. Janitors' efficiency will be rated to quite a degree on their ability to do such work. A reasonable amount of tools will be furnished each janitor for his work.

Sec. 15. Janitors shall see to it that unnecessary materials do not collect in the cloakrooms, corri-

dors, basements, and other places.

Sec. 16. Whenever in the judgment of the superintendent it is advisable, janitors shall attend meetings and receive instructions that will be beneficial to them in their work. Proper substitutes shall be provided upon such occasions.

Sec. 17. Janitors shall have the same sick-leave privilege as teachers.

Sec. 18. Janitors shall have two weeks' vacation on full pay each summer; the time of which will be arranged with the superintendent.

Sec. 19. Janitors shall perform such other duties, during the regular year or summer, as may be assigned them.

### RULES AND REGULATIONS

—The board of education of Boston, Massachusetts, has adopted a rule governing custodians, which reads as follows: "The schoolhouse custodian shall exercise general supervision and control over the custodians and their assistants employed in the several school buildings and the administration building; see that the rules and regulations for their government are enforced, and report to the school committee, in writing, cases of negligence, or inefficiency, on the part of such employees."

—The board of superintendents of New York City has adopted a set of regulations governing graduation from the night schools. The new regulations were prepared by a special committee of evening high-school principals and represent the first definite codification of requirements for this purpose. Under the rules, evening-school students are required to complete the same work as day-school students, with the exception that several of the elective courses of the day schools are omitted.

—The board of education of Los Angeles, California, has amended its rules governing the use of school premises by outside groups, to read as follows:

"There shall be no admission fee charged, and no contribution collected; provided, however, that responsible citizen groups organized for community benefit and not for private gain may solicit memberships and collect dues or membership fees in school buildings at any meeting held at least one hour after or one hour before school is in session."





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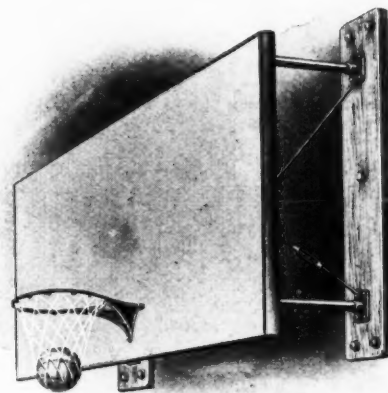
The playground, stimulating, fascinating, is a part of the modern educational system; building strong bodies and active minds. The Medart Organization has been active in the playground movement from its inception—making playground apparatus appealing to the child imagination. But back of all that is the safety and durability achieved through fifty-seven years of specialized manufacturing experience. The Medart Playground Equipment catalogue is sent free on request. It illustrates and describes many different pieces and combinations of playground apparatus.

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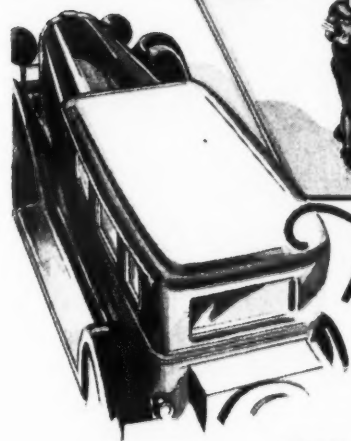
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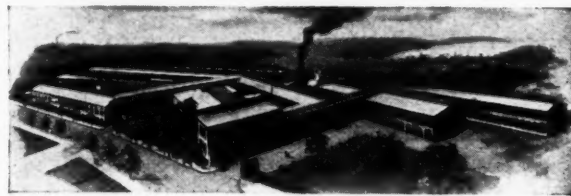
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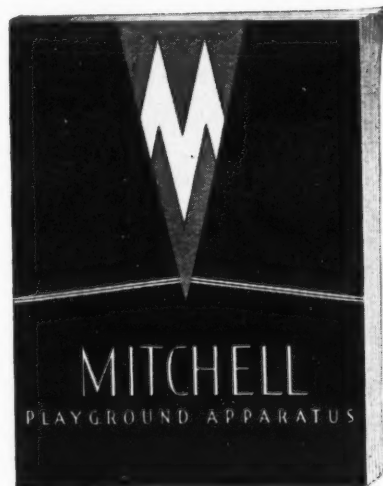
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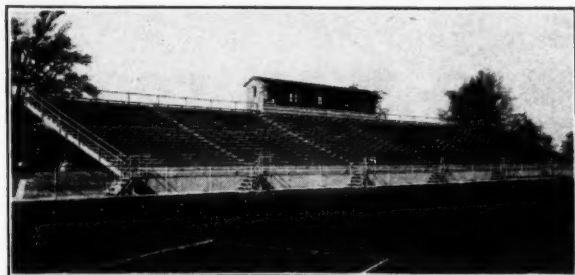
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## SCHOOL FINANCE AND TAXATION

—Uhrichsville, Ohio. The school board has adopted a budget of \$121,000 for the year 1930, which is \$4,000 higher than that of last year.

—Terre Haute, Ind. With the reorganization of the school board in January, a report was presented showing the financial condition of the city schools. The report showed that the board is in debt and facing a deficit in the teacher's fund.

—Governor F. D. Sampsom of Kentucky has proposed the creation of a teacher's equalization fund, to be used for the benefit of counties which are unable to pay teachers a minimum of \$75 a month. A bill has been introduced in the legislature calling for an appropriation of \$1,500,000 out of the general fund for this purpose.

—With the payment of \$500,000, the balance due the Atlanta banks on the Georgia state school loan has been reduced from \$1,000,000 to \$500,000. It is anticipated that most of the state's debts will be paid by March 1.

—Pittsfield, Mass. The school board has adopted a budget for the school year 1930, calling for an appropriation of \$776,000, which is an increase of \$45,000. The budget calls for \$603,000 for teacher's salaries during the year.

—The school board of Lowell, Mass., has asked for an appropriation of \$1,408,621 for the school year 1930.

—Fort Worth, Tex. The school board has mortgaged the next bond issue to the extent of \$19,451 in order to pay bills incurred for current operating expenditures.

—St. Joseph, Mo. The school board has taken steps toward obtaining \$26,000 additional from public utilities in taxes. The board has indicated that it will prove to the state public service commission that public utilities in St. Joseph should be taxed for property owned within the district. As the average tax amounts to 50 cents on each \$100 of taxable property, the rate would be increased

to about \$1.25, which would amount to approximately \$26,000.

—Lynchburg, Va. On January 14, the school board approved a budget of expenditures for the school year 1930, aggregating \$470,500. Of this sum, \$353,000 is allowed for instructional expenses in the day schools, an increase of \$13,000 over the allotment for 1929. The total budget represents an increase of \$10,550 over that of 1929.

During the past year, the school board expended from current revenues, more than \$50,000 for real estate, new buildings, and the enlargement of buildings, in addition to smaller items of improvements to school property. This was in addition to the regular budget item for repairs and minor alterations.

—Anacortes, Wash. The school board has undertaken the preparation of the annual budget. Although few major improvements have been contemplated, there will be a considerable outlay for books and equipment. It is anticipated that the school district will be in position in another year to consider the voting of bonds for a new high school.

—The state education department of Ohio has begun a study of the financial condition of twenty counties in which state aid is given to financially handicapped school districts. Dr. J. L. Clifton, state director of education, has assigned the work to Mr. G. M. Morris, state supervisor of rural schools, and to Dr. H. H. Davis, auditor for the state education department.

The study has been begun to determine the total amount each district is to receive from the \$4,000,000 appropriated by the general assembly for these schools, and to check the expenditures made during the past year. A total of twenty counties will be visited by the investigating school officials.

—Chicago, Ill. The school board has cast aside all retrenchment proposals in the adoption of its 1930 school budget, appropriating \$101,786,408 for the operation of the school system. The board made no attempt to keep the budget within expected revenues, voting to include a deficit of \$10,018,171 incurred during the year just ended. Elim-

inating that amount, the total of appropriations listed is \$91,768,237, or \$5,271,629 more than was spent in 1929. Of the total amount, \$53,389,103 is for the educational fund, and \$33,045,001 is for the building fund.

—Fremont, Ohio. The school board has received bids on a \$350,000 school-bond issue. The proceeds of the bonds will be used for the erection of the new junior high school.

—Elyria, Ohio. The school board has adopted a budget, calling for an appropriation of \$855,822 for the operation of the schools during the next year. The appropriation is a decrease of \$73,733 from the 1929 appropriation, which amounted to \$929,606. The largest item in the budget is \$35,000 for the teachers' payroll fund.

—Salem, Mass. The school board has adopted a budget, calling for an appropriation of \$519,192 for the school year 1930-31.

—Terre Haute, Ind. In continuing its program of economy and efficiency in school expenditures, the school board has reduced the janitorial staff and reorganized the department so as to effect a saving of \$1,000 a month in janitorial work. The employment of carpenters, plumbers, and painters for job work has been discontinued. Janitors will be required to do the work performed by these workmen. The state tax board has been asked to approve a proposed loan of \$200,000 for meeting deficits in school funds accruing from last year.

—Glencoe, Ill. In line with the action of other Cook county taxing bodies, the school board has taken steps to reduce the amount of money to be levied to what is actually needed for the year. The school board has asked the county clerk to reduce the amount of taxes levied in the year 1928, and collectible in 1929, from \$200,000 to \$175,000, a reduction of \$25,000. The new levy calls for \$130,000 for educational purposes, and \$45,000 for building purposes.

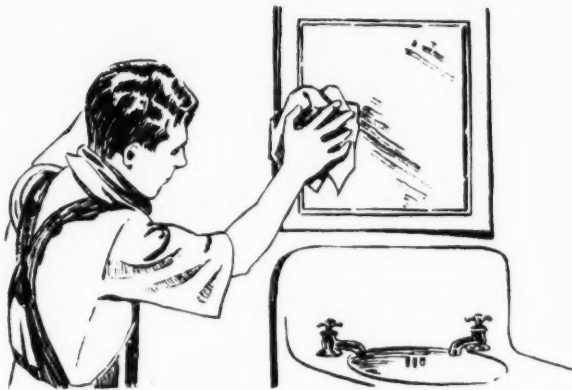
The schools of Glencoe are at present operating on money obtained from tax-anticipation warrants issued for the taxes of 1928, which have not been collected. The interest on these warrants had increased the financial burden which the school budget must bear.



## What is your washroom problem?

**I**S IT film that cannot be washed off, providing a breeding place for germs? Is it unsatisfactory cleaning due to wrong material used? Or do all your cleaning tasks seem to take an unnecessarily long time?

Whatever your problem, you will find Oakite a quick, easy solution to it. This energetic material contains no soap, so cannot leave film on fixtures in washroom or lavatories. Porcelain and enamel surfaces gleam and glisten when Oakite



is used to clean them. And walls are easily kept looking like new with this safe, effective material.

Important to remember is that Oakite is odorless, contains no abrasive, is completely soluble, and saves time and effort on every school cleaning task. Best of all, it is extremely economical to use.

Let our nearby Service Man come in and prove to you the many advantages of using Oakite. Write and he will call.

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# OAKITE

TRADE MARK REG. U.S. PAT. OFF.

**Industrial Cleaning Materials and Methods**

*Oakite Service Men, cleaning specialists, are located in the leading industrial centers of the United States and Canada.*

—Detroit, Mich. The school board has adopted a budget, calling for \$30,799,659 during the school year 1930-31. The budget includes an appropriation of \$1,000,000 for a new board office building.

—Rockford, Ill. The school board has voted tax-anticipation warrants totaling \$175,000 for general expenses.

—Lawrence, Mass. The school board has been asked to approve a budget, calling for an appropriation of \$1,185,120 for the school year 1930-31. The budget represents an increase of \$22,000 over that of last year.

—Bloomington, Ill. The school system must have an increase in the school funds in order to hold the best teachers, according to Dr. E. L. Brown, a member of the board. Dr. Brown pointed out that the board is unable to pay salaries to compete with other cities, and for that reason a good many of the teachers leave the system. It was suggested that a tax increase be voted for the educational department.

—The state education department of Ohio has completed a six-weeks' study of the financial condition of twenty counties in which state aid is given to weak school districts. The study was begun to determine the amount which each school district should receive from the \$4,000,000 appropriated by the general assembly for the weak schools and to check the expenditures for 1929.

—The school board of Multnomah county, Oreg., has adopted a resolution favoring a change in the school budget year to conform with the tax year. The school budget year now starts on the third Monday in June, and the tax year begins on January 1, which has caused confusion in financing the schools.

—Pittsburgh, Pa. The school board has adopted a tax rate of 5 7/8 mills in Overbrook for the latter half of the year 1930. The rate is exactly half of the yearly rate for the Pittsburgh schools and is applicable to the recently annexed school district of Overbrook. The 1931 levy of school taxes for the Pittsburgh school district will automatically include what was formerly the Overbrook district.

—Chatham, N. J. The school board has adopted a budget, calling for an appropriation of \$98,775,

as against \$93,600 for last year. Of the total, \$89,275 will be devoted to current expenses, and \$9,000 for repairs and replacements to buildings.

—Montclair, N. J. The school board has adopted a budget, calling for a total of \$1,374,772 for the school year 1930-31. The budget is largely due to an increase of \$52,323 in the appropriation for teachers' salaries. The amount to be raised by taxation is \$1,070,352, or an increase of \$40,167. The largest item in the budget is \$1,011,765 for instruction costs, and the next largest is that of operation, which totals \$144,260. The third largest item is general control, which calls for \$62,127, or an increase of \$5,857.

—Clinton, Mass. The school board has asked for an appropriation of \$166,950 for the school year 1930-31. Last year an appropriation of \$167,120 was made for operating expenses of the schools. The amount allotted for school repairs was set at \$7,500, which was considered not too large in view of the cost of ordinary repairs to the school buildings.

—The cost of educating a pupil in average daily attendance in Orange, N. J., public schools for the year 1928-29 was \$111.58, according to statistics compiled by Supt. W. B. Patrick. The figure places Orange second lowest on a list of twenty communities in Essex county. Belleville was lowest with \$88.80.

The average per-capita cost of education in 170 typical cities of the United States for 1928, including all current expenses except interest payments, was \$101.19. This statement is made by Frank M. Phillips, of the United States Office of Education.

—New Bedford, Mass. The school board has adopted a budget, calling for an appropriation of \$1,700,550 for the school year 1930. The present budget is \$11,000 less than that of last year. Of the total, \$1,297,000 will go toward teachers' salaries. This year's appropriation includes \$26,621 in automatic salary increases. An appropriation of \$32,550 for repair of school buildings has been requested, as compared with \$26,900 for last year.

—Forest Park, Ill. The school board has discussed the advisability of reducing the original tax

levy of \$300,000 for school purposes. The board finds itself in the embarrassing position that it owes the banks \$100,000 for money borrowed on tax warrants on 1928 taxes, and about \$80,000 on anticipated warrants for the year 1929. With the banks tightening up on loans, the school board finds that it cannot impair its credit by defaulting on the payment lien against tax money received.

—Terre Haute, Ind. The school board has obtained a loan of \$200,000 from local banking concerns for the payment of salaries of teachers, janitors, and other employees. Pres. Paul Bogart asked that the school officials exert the utmost economy in the use of the money so that another emergency will not be created. It was pointed out that another loan might become necessary next fall or near the close of the year.

—Adrian, Mich. The school board will close the fiscal year with an estimated deficit of \$40,000. A special appropriation was made last year to cover a temporary deficit.

—Detroit, Mich. The school board has adopted a budget, calling for an appropriation of \$30,799,659 for the school year 1930-31.

—Cleveland, Ohio. With nearly all school systems in Cuyahoga county facing increased expenditures, school officials of Cleveland Heights have reported a saving of nearly \$2,000 in 1929 over the previous school year, despite the operation of two new schools. According to Mr. W. G. Nesbit, school business director, the operation and maintenance of the schools cost a total of \$244,000 in 1929. Of the entire allowance for conducting the educational system amounting to \$2,119,377, only \$1,976,776 was spent, which left a balance of \$142,598 in the school treasury.

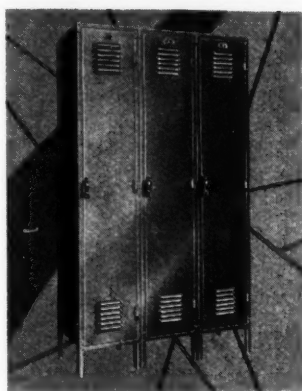
—The school board of Terre Haute, Ind., has taken up the matter of relieving the present financial situation in the schools. It is planned to float a short-time loan to meet the teachers' payroll.

—Tacoma, Wash. The school board has adopted a pay-as-you-go plan for the financing of new school buildings. The new plan is in the direction of economy in financing school-building construction.

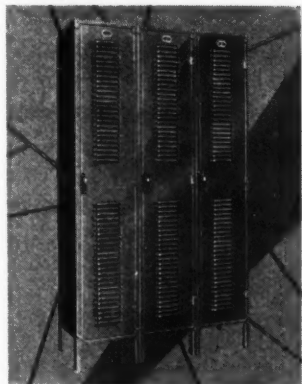


# These 6 Types—

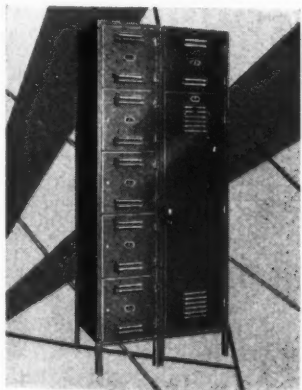
*Recessed in Corridor Walls or  
Free Standing ~ will meet  
every requirement*



Single-tier  
standard louver



Single-tier  
full louver



Combination  
locker

From these six types of school lockers, you can select the ones best suited to your requirements.

After Sales, Satisfaction is all BERLOY has to sell.

Lockers that will justify your judgment and your dollars—

Lockers that will withstand the treatment Young America gives them—

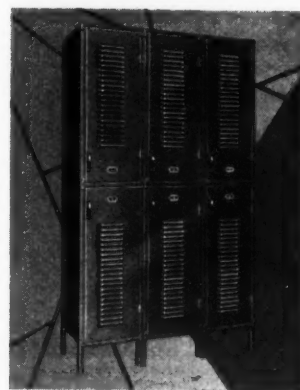
Lockers that will be a permanent adjunct to your equipment—

Lockers that will be sold and installed with SERVICE an integral part of the contract. Our nearest Branch or Representative will assist you in selecting the type best suited to your requirements.

*Lockers, Filing Cabinets, Storage  
Cabinets, Desks and Tables, Wire  
Baskets and Racks for Gym Clothes.*

**THE BERGER MANUFACTURING CO.**  
CANTON, OHIO

BRANCHES				
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Export Dept.—Canton, Ohio				



Double-tier  
full louver



Double-tier  
standard louver



Compartment  
locker



# No. 6 SOLARS are sanitary

## of a series

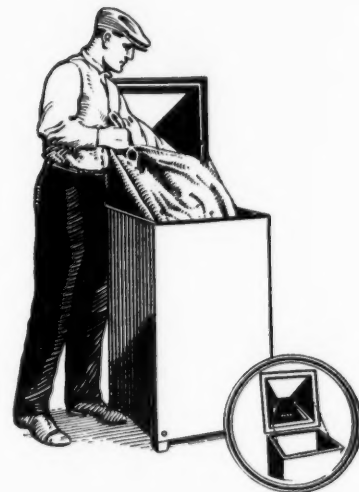
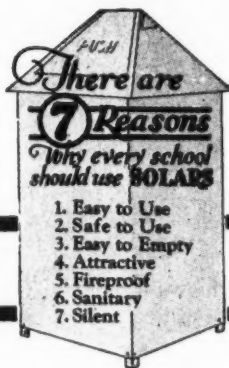
The SOLAR Self-Closing RECEPTACLE will do much to maintain sanitary conditions about school buildings and grounds, for regardless of the type of waste material encountered, the SOLAR will handle it without muss and without danger of contamination.

Every SOLAR has an inside container specially designed for handling the particular kind of refuse most frequently deposited. This container may be a bag of paper, burlap or duck, or a galvanized iron can. In his daily cleaning round, the janitor simply removes this inside container with its contents, leaving the SOLAR itself as clean and neat as ever.

The disposal of waste material of organic origin presents no problem when the SOLAR Self-Closing RECEPTACLE is used. Human hands need never touch the refuse, for the inside paper bag may be destroyed with its contents. Further protection against offensive odors and the spread of disease germs is provided by the gravity operated cover which closes automatically. Flies and vermin do not reach the contents of a SOLAR.

With the present day demand for sanitation and cleanliness you cannot overlook the value of SOLAR Self-Closing RECEPTACLES in preventing the spread of disease and in taking most of the unpleasantness from the disagreeable task of waste disposal.

Write for descriptive literature.



Human hands need never touch waste material after it enters a SOLAR. Simply remove the bag with its contents, inserting fresh, clean bag in its place.

**SOLAR-STURGES MFG. CO. MELROSE PARK ILLINOIS**

### THE FITCH HIGH SCHOOL, GROTON, CONNECTICUT

(Concluded from Page 64)

with the usual utilitarian and economic limitations necessary in public secondary buildings. The construction details of the building are as follows:

Construction Data	
Date contract awarded.....	Aug. 1, 1928
Date building occupied.....	Sept. 3, 1929
Site	
Dimensions.....	Ten acres
Principal frontage.....	1,000 ft.
The Building	
Classrooms.....	6
Commercial department.....	2
Laboratories.....	2
Library rooms.....	1
Study rooms.....	1
Fine arts.....	1
Offices.....	3
Book storage.....	2
Teachers' room.....	2
Clinic.....	1
Restroom.....	1
Auditorium.....	51 by 66 ft.
Gymnasium.....	45 by 66 ft.
Cafeteria.....	1
Domestic science.....	2
Shop rooms.....	1
Design and Construction	
Exterior design.....	Georgian
Exterior facing.....	Tapestry brick
Exterior trim.....	Stone
Construction material.....	Concrete
Finish of stairs and corridor.....	Metal
Finish of classrooms.....	Metal
Finish of auditorium.....	Wood and plaster
Finish of gymnasium.....	Tile
Finish of toilet rooms.....	Keene cement
Mechanical Equipment	
Type of heating and ventilation.....	Vapor system
Electrical equipment.....	Complete
Plumbing.....	Modern school type
Cost and Pupil Capacity	
Pupil capacity of building.....	315
Pupil stations.....	552
Cost of building.....	\$209,884
Cost of equipment.....	24,000
Total cost of building.....	233,884



AUDITORIUM, ROBERT E. FITCH HIGH SCHOOL, GROTON, CONNECTICUT  
Haynes and Mason, Architects, Fitchburg, Massachusetts

Cost per cubic foot.....32 cents  
Cost per pupil.....\$380

#### BUILDING NEWS

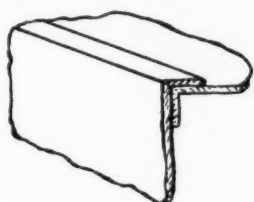
—Philadelphia, Pa. The school board has taken action toward the replacement of a number of old schools with new structures. Funds for the program were authorized in January, when the board agreed to call an election to vote \$2,000,000 in bonds for new buildings.

—Thirteen new school buildings, including the Tilden High School and the Seward Park High School have been opened in New York City with the beginning of the second semester of the school year. The new schools, three in Manhattan, three in Bronx, six in Brooklyn, and one in Richmond, provide about 14,000 seats, and cost \$13,000,000.

—Oshawa, Ont. The board of education has completed a collegiate building, at a cost of \$325,000.

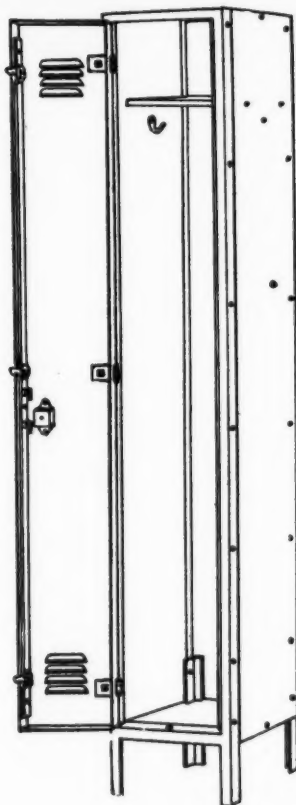


# NORWEST STEEL LOCKERS



**STEEL CONSTRUCTION**  
with flanged joints, assuring double thickness of steel for bolting—with consequent increase in strength and rigidity.

**DOORS EXTRA STRONG,**  
made of 16 gauge steel but with sufficient flexibility to spring back to shape in case they are accidentally bent out of alignment.



**DOOR STOP** — One piece door stop, (recessed to receive the locking fingers of the locking bar, and extending to full length of the frame) eliminates danger of clothing being caught or injured. This, with the extremely simple locking device, provides the utmost strength and minimizes danger of pilfering.



## These Practical Features Save Taxpayers' Money

NORWEST Steel Lockers are built to successfully withstand the rough usage that they are so apt to receive from school children. No matter whether the door be closed gently or "banged shut", the locking device operates automatically, quietly and positively.

Amongst other distinctive features of Norwest Lockers are—(1) Coat hooks are fastened with *two* bolts and cadmium plated (as are all other bolts and nuts which are used in the assembling of these lockers). (2) The two coat, baked-on enamel finish which enhances and preserves their attractiveness, refinements—expensive for us, but contributing to the high reputation for service, quality and satisfaction which Norwest storage equipment enjoys.

Consult Our Experienced Storage Engineers. They will gladly submit prices, and without obligation, assist you in selecting the types and sizes of lockers best suited to your requirements. And if so desired, submit lay-outs, enabling you to obtain maximum storage capacity in limited space.

**WRITE  
TODAY**

for catalog showing  
complete line of  
**NORWEST Steel**  
Lockers and Shelving.

## NORTHWESTERN STEEL PRODUCTS CO.

MAKERS OF STEEL LOCKERS, STEEL SHELVING, STORAGE CABINETS, ETC.

Subsidiary of North Western Expanded Metal Co.  
1264 Old Colony Building, CHICAGO



## A CAREFUL JOB ... at lower cost



Ideal Power Mowers mean smooth, close-shaven grass. The two Roller Type mowers cut a 22- and 30-inch swath. (They roll out bumps as they cut.) The Wheel Type (for heavy or hilly going) cuts a 20- and 25-inch swath.

The Ideal "25," illustrated above, cannot be surpassed for general cutting work. It is easily guided around obstructions and over walks. The power is controlled from the handles. Differential in drive wheel for guide, turning is easy.

With it, fewer workmen are needed. Maintenance and running costs are low on these strong and simple motors. For school grounds and gardens, an Ideal can insure better grass and lower cutting costs. Write for illustrated details.

**IDEAL POWER LAWN MOWER CO.**  
435 Kalamazoo Street, Lansing, Mich.

#### BRANCHES

413 West Chicago Avenue Chicago, Illinois	237 Lafayette Street, New York City
273 Boylston Street, Brookline, Massachusetts	161 Vester Street, Ferndale (Detroit), Michigan

DEALERS IN ALL PRINCIPAL CITIES.

#### CANADIAN DISTRIBUTORS:

Aikenhead Hardware, Ltd.  
17 Temperance Street, Toronto, Ontario

## IDEAL POWER LAWN MOWERS



## Spend Wisely when you buy your school fence

Everyone recognizes the imperative necessity of restraining the children from the dangers of their own carelessness. But when you buy a Fence, buy **permanence**. Careful buying (and not necessarily paying a higher price) can secure a fence which will outlast the years. You surely ought to analyze the Stewart Specification before you make any decision.

There's a new Stewart School Fence Catalog you will want to consult. Ask us to send it.

**THE STEWART IRON WORKS COMPANY, INC.**  
605 STEWART BLOCK, CINCINNATI, OHIO

# Stewart FENCE



## The Adaptability Of The Wayne Type B Sectional Steel Grandstand

is shown by this photograph, taken in the gymnasium of  
**Wittenberg College,  
Springfield, Ohio.**

This section is part of the stand used on the football field the past season.

Write for catalog and prices of

**WAYNE STEEL GRANDSTANDS**

**WAYNE IRON WORKS**

Lincoln Highway and Pembroke Ave.  
**WAYNE, PA.**





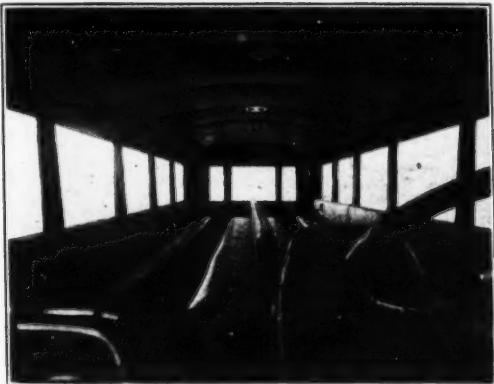
18 ft. body—seating capacity—60 children

The NEW DELUXE SCHOOL BUS BODIES

All of the many new features of modern coach work are incorporated in the design and construction of these new models. They are built to meet the requirements of the progressive school board that is interested in securing equipment that will always meet with public approval and appreciation.

For photographs, specifications and prices  
wire or write

The Fremont Metal Body Co.--Fremont, Ohio



SMALL PENNSYLVANIA SCHOOL HOUSES

(Concluded from Page 61)

pitched roof over the front portion.  
The building contains four standard classrooms and is so arranged that more rooms may be added. Two classrooms are separated with sliding doors for assembly purposes or community meetings.  
When the building was completed the members of the opposition swallowed their injured pride and joined with the original proponents to dedicate the building. The old buildings were sold and consolidation, so bitterly fought, is now an accepted fact. Most of the pupils are transported to and from the school by busses.  
The building cost about \$33,000.

Forest Avenue School

A fire is usually a tragedy. Sometimes, however, it is a blessing in disguise. When the old, out-of-date Forest Avenue School at Ambler, Pa., burned down one Saturday afternoon, it was a blessing in disguise. The old building had long ago outlived its usefulness, and yet the cost of replacing it was more than the school board had felt the district could afford.  
The new building, although of about the same area, has almost twice as much classroom space as had the old building. Owing to the space limitations of the lot, it was necessary to get away from the usual geometric plan, with uniform spacing of windows from a central axis. No attempt was made to place the entrance on the central axis of the building, thus making a more interesting arrangement.  
The closed type of plan without provision for future additions was adopted because of the limited size of the playground. Advantage was taken of the street grades to provide a small assembly room in the basement. The building contains eleven standard classrooms, a library,

an office, a teachers' room, a storeroom, playrooms, and a kitchenette. The corridor floors and stairways are of fire-resistive construction; the balance of the floors and interior partitions are frame.  
An emergency lighting system is provided for the assembly room, the corridors, and the exits. The building is heated and ventilated by means of a steam-vacuum system with unit ventilators. The boiler is adapted for burning soft coal.  
A program-clock system operates classroom clocks and inside and outside call bells. A fire-alarm system, an ash hoist, and an automatic water heater have been included.  
The exterior walls are of a local light-gray sandstone. The interior trim is unselected birch, natural finish. The baseboards are of metal. Natural slate blackboards and cork bulletin and tack boards are provided in all classrooms. All classroom windows are of the reversible type.  
The cost of the building was about \$92,000.  
**THE SCHOOL HOLDING COMPANY DILEMMA IN INDIANA**  
(Continued from Page 65)  
the legislation, and many sites were acquired and buildings built under these various holding companies acts.  
During this period public opinion seemed to be in accord with the legislation passed. However, there were some indications that the laws were not entirely meeting with public approval due to the fact that a taxpayer had no relief in case he was opposed to a local holding company proposition. As a result, two years later the state legislature amended the acts of 1927 by House Bill 148, March 11, 1929; Senate Bill 44, March 13; and Senate Bill 48, March 14. These three supplementary acts of 1929 provided that:  
"That ten or more taxpayers other than those who pay toll taxes only, who will be affected by such bond issue, subscription to capital stock or rental contract

may within fifteen days after notice as aforesaid, file with the county auditor their written objections to, or petition for, refusal of such proposed bond issue, capital-stock subscription and rental contract, or either of them, and such objection or petition for refusal shall be certified by the said county auditor to the state board of tax commissioners.  
"That the state board of tax commissioners shall hold a hearing thereon within the county, giving notice to the interested taxpayers . . . After such hearing, the said state board of tax commissioners shall make its order disapproving, approving, modifying, or reducing the amount of such bonds which may be issued or the rate of interest thereon, the terms and amount of the subscriptions to the capital stock, or to the rental incurred in such rental contract, but may not increase them. The decision of the said board of tax commissioners therein shall be final."

Two-Million-Dollar Program on Rocks

A tabular view of the counties and the amount of stock held under the holding acts of 1927 and 1929 is here given.

TABLE II <sup>a</sup>			
County	Amount	County	Amount
1.....	\$ 7,000	14.....	\$ 20,000
2.....	73,000	15.....	120,000
3.....	72,000	16.....	6,000
4.....	25,000	17.....	75,000
5.....	41,000	18.....	240,000
6.....	250,000	19.....	100,000
7.....	78,000	20.....	2,000
8.....	125,000	21.....	135,000
9.....	50,000	22.....	95,000
10.....	50,000	23.....	80,000
11.....	100,000	24.....	50,000
12.....	149,000	25.....	4,000
13.....	50,000	26.....	75,000
Total.....			\$2,072,000

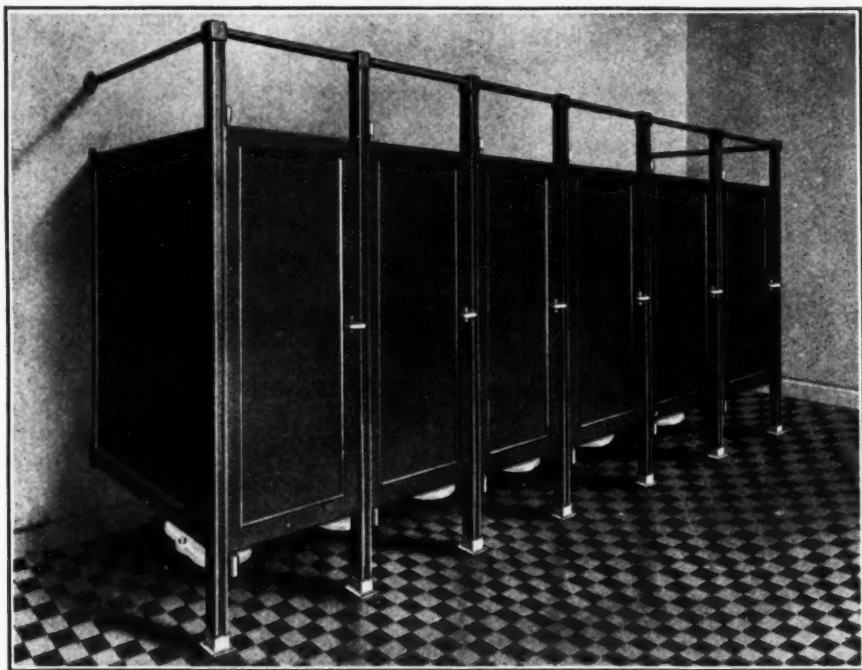
The table reveals several significant facts: First, the school units which have availed themselves of this legislation are confined to no section of the state geographically. Second, the counties in the richer sections have used the system as well as the poorer counties. Rich as

<sup>a</sup>Indiana Session Laws of 1929.  
<sup>b</sup>Letters were received from every county in Indiana.



# UNIT-PANEL

*a totally new steel toilet partition by Sanymetal*



**Unit Assembly** of partition panel and post, welded into one unit at the factory.

**Easier Erection** assured by the above assembly, plus the new adjustable wall bracket feature.

**Adjustable Wall Bracket** permits ample adjustment for all wall conditions, and allows wall-clearance for sanitation and ventilation.

**Fine Appearance** throughout—panels and doors designed for beauty as well as sanitation, and trimmed with neat drawn moulds.

**New Design Hinges**—all-assembled and encased, full-floating Gravity Roller Bearing Hinges.

**New Super-Finish**—enameled in "Sanylene," the new crack-and-chip-resistant finish.

**And Finally—Economy**—this new Sanymetal design is priced at the most reasonable figure consistent with substantial quality in a toilet installation. Before you buy—investigate Sanymetal Unit-Panel.

Sanymetal steel compartments are made in several designs for toilet, shower, and dressing enclosures. Sanymetal also manufactures steel-and-glass office and factory partitions in four types, and hospital cubicles. Write for descriptive literature on any of these products.

**THE SANYMETAL PRODUCTS CO.**

1703 Urbana Rd., Cleveland, O.

## For Schools *Sanymetal* T.M. Reg. **TOILET and Shower PARTITIONS**

well as poor towns and cities are making use of the holding acts. Third, those upon whom the burden eventually rests have been the ones who have demanded the legislation, and who have promoted the associations. Fourth, the general need of a more liberal policy on the part of the state in raising the constitutional limitation seems evident. Fifth, the present constitutional limitation provides a handicap for a sound educational financial policy. Sixth, Indiana is one of the very few states having such a low maximum constitutional limit. The more progressive states range from 4 per cent to 6 per cent, as a maximum constitutional limit. Seventh, the people should have the right to tax themselves to the extent of meeting present needs. Eighth, there has been a tremendous growth in the associations and in the money invested in the past two years.

### Holding Law Meets Its Waterloo

Although the law met with favor in many quarters, it encountered opposition. Then Samuel Hivley brought suit against the school city of Napanee and its trustees and the Nappanee Building Company, to enjoin them from entering into a lease contract under the provisions of the 1927 act for building a school building. The complaint alleged that this contract was executed July 7, 1927, leasing certain real estate for 25 years, at a rental of \$1 per year. The total indebtedness was \$180,300, which the school city was to take up at the rate of \$9,500 the first year, \$11,300 the next 8 years, and \$13,800 the remaining 16 years. The complaint further claimed that the indebtedness of the association actually belonged to the school city and as such, pushed the indebtedness of the school city above the 2-per-cent limit. The contract provided that:

"It is understood and agreed by and between the parties thereto that the lease is not to be construed to impose any obligation on the part of the lessee to

purchase such building and premises, hereby leased by it from the lessor, nor shall any provision contained in this lease ever be construed to create any obligation on the part of the lessee to any creditors, stockholders, or other security holders of the lessor."

The case went against Hivley in the lower court, but on appeal, the supreme court handed down its decision of December 5, 1929. In its opinion, the court condemned the law in no uncertain terms:

"The contract here read as a whole, and considered together with the provisions of Chap. 223, acts of 1927 leaves no doubt in the mind of the court that it was entered into for the purpose of evading the mandate of the constitution and of doing indirectly, through the plan and through the corporation provided by the act, that which could not be done directly. The law will look to the substance of the transaction regardless of its form or color. The contract provides for the payment of annual installments over a period which equals in length the usual life of a school building, together with the interest thereon. and the school city is bound not only to pay all taxes . . . but to keep the buildings in repair. It is required by section 4 of the act to levy a tax annually to pay the amounts necessary to carry out the contract, and for all practical purposes it is clear that the entire liability for the whole bond issue of the building company must and does rest on the school city, regardless of a provision in the contract to the contrary.

"The contract actually accomplishes exactly what it disclaims in the paragraph just quoted. We, therefore, conclude that the contract set up in the complaint constituted a present indebtedness on behalf of the school city for the total amount to be paid out thereunder, and it follows that the complaint states a cause of action and is good."

### Legal Sanction Requested in Amici Curiae Proceedings

The various holding companies, realizing the seriousness of the decision, by leave in *Amici Curiae*, have filed a brief seeking to sustain the action of the trial court. They suggested that a substantial number of leases in pursuance of the law and its amendments have been made

\*Hivley v. School City of Nappanee, Ind., 1929.

and have been approved by the state board of tax commissioners. Also, they stated that the securities of the holding companies in the sum of many thousands of dollars are held by innocent purchasers.

### Significant to School Administrators

The decision is of significance to public-school administrators generally. Many of the most public-spirited citizens in the State of Indiana are placed in an embarrassing and uncertain position regarding the money invested in these school buildings. The buildings are located on school property, and an unsympathetic taxpayer could undoubtedly cause the stockholders worry, if not financial loss, by taking steps to prevent payment for the buildings.

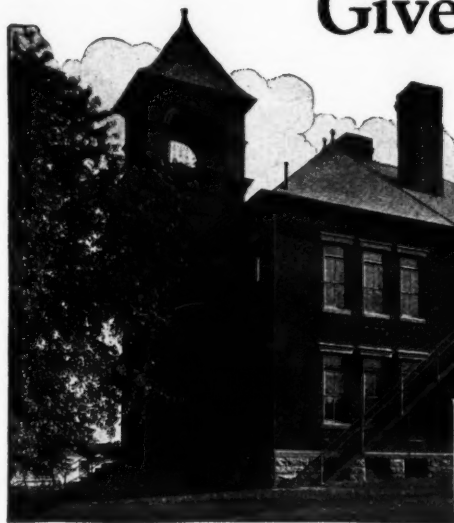
The financial interests of those who invested in the holding companies organized under the unconstitutional laws of 1927 and 1929 will undoubtedly be protected. In any case, a valuable lesson may be learned by school officials from the Indiana school-holding companies' dilemma. It pays to study the fundamental principles of the laws relating to education. Undesirable constitutional provisions concerning education should be amended rather than evaded.

—Gary, Ind. The school board has asked the city council to approve a proposed school-bond issue of \$190,000 as the first step in financing a new \$650,000 school structure. The plans call for the development of the Lew Wallace School to a million-dollar educational center, to house all the grades and the high school. The building, which will be erected from plans prepared by Architect William B. Ittner, of St. Louis, will be started next September.

—New York, N. Y. Six more new school buildings, with accommodations for 12,008 pupils, were opened for use on March 3. These schools will further relieve the congestion and will effect a substantial reduction in the number of pupils on short-time or special schedules.

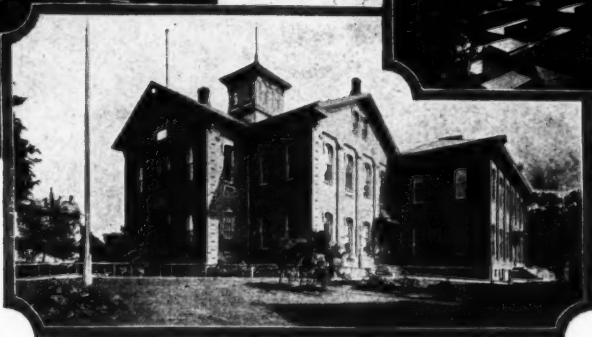


## Give the old School Modern Warmth and Ventilation



The John Porter School, Easton, Pa.

Right, The Public School in Catawissa, Pa.



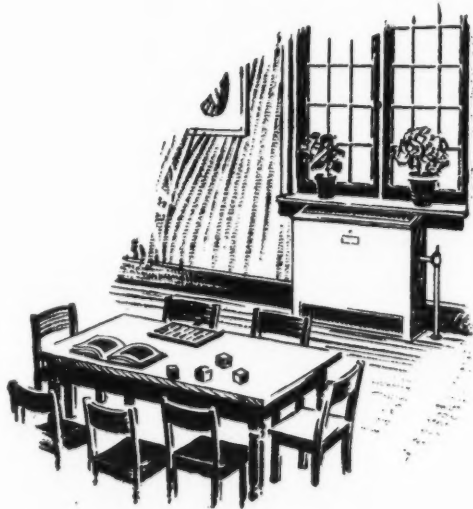
A classroom in the Catawissa, Pa., Public School, showing one of the PeerVent installations.

### Pioneers in Unit Ventilation

**B**ECAUSE the building is old is all the more reason for employing modern heating and ventilation to protect the health and stimulate the mental activity of the pupils. PeerVent Systems can be installed in old school buildings as readily and easily as in new. In most schools existing piping can be used for the new units, and for the air intake, small openings are provided through the wall directly back of the unit or if necessary, the air inlets are brought in just above the window sill. This method entirely avoids the drafts and dust-laden air that otherwise come through open windows.

The two schools shown in the picture, both old buildings, were recently equipped with PeerVent Heating and Ventilating Units without disturbing existing direct radiation.

PeerVent Units give good results in connection with any high pressure, vapor, vacuum or gravity steam heating system and are *absolutely quiet* in operation.



PEERLESS UNIT VENTILATION CO., Inc.

BRIDGEPORT, CONNECTICUT

OFFICES IN PRINCIPAL CITIES FROM COAST TO COAST

# PEERVENT

**Heating and Ventilating Units**





This is a typical Bradley Washfountain installation. Note the wide bowl and the low central spray which requires the children to bend over the bowl while washing. Keeps the floor clean and dry.



"Modern Washroom Requirements" shows many typical Bradley-equipped washrooms. Ask for your copy.

## THE CLEANEST WASHROOMS ARE THE LEAST EXPENSIVE-- -- WITH BRADLEY WASHFOUNTAINS

It costs far less to keep washrooms clean when you select the right washroom equipment. Bradley Washfountains—used by many of the finest schools in the country—have proved this beyond a doubt.

Bradleys have wide, low bowls with a central spray which requires the children to wash *over* the bowl. Water does not drip on the floor to cause extra janitor work. The bowl is self-flushing with a central drain to prevent standing water or suds from collecting. The marble-like, polished surface of the Washfountain is easily cleaned.

Ten children can wash at once around each Washfountain. Since a Bradley uses the ordinary connections of an individual wash bowl, water savings as high as 80% are not uncommon.

Bradleys cost less to install than ordinary equipment. They save space and their colorful bowls make any washroom more attractive, more cheerful. Bradleys make keeping clean a pleasure instead of a duty. Several types and sizes are available and in case of remodeling, existing connections can often be used. Ask for full details. The Bradley booklet "Modern Washroom Requirements" is sent free on request.

BRADLEY WASHFOUNTAIN CO.  
2223 Michigan Street Milwaukee, Wis.

# BRADLEY WASHFOUNTAINS



For washrooms of unusual shape there is the Wall Type Bradley Washfountain. The Bradley here shown has foot control of the water flow.

### GETTING A POSITION

(Concluded from Page 48)

described, are not to be regarded as separate and apart, but rather as indicating the trend which any application is likely to take. When the candidate has fully presented his case and senses that conditions are right, then is the time to press a decision.

#### Satisfactory Service Necessary to Promotion

Once the decision is arrived at, and the candidate has the appointment, it might seem that the sale is finished. Far-seeing business men recognize the sixth step or law in a sale as the most important of all. This law is to "give satisfaction." The surest means of promotion open to any schoolman is to give the highest possible degree of satisfaction in the office he holds. The best time to begin effective preparation for another new position is the first day a man works in the present position. The cycle is not complete when a sale is first made. It really reaches its desirable consummation only when, by giving complete satisfaction, it leads up naturally to another sale.

#### The Road to Progress

The inference is plain for every schoolman: He must strive continually to fill his present position more than full. He must not only do willingly what is required in the bond, but he must also give freely of himself in service to education in other ways. In addition to being an educational leader, he should be a recognized leader among the men in the community in every worthy community enterprise. His work should display such outstanding features that he will be known as an educational leader in the state, as well as locally. He must resolutely pursue the open road of progress, reserving some portion of each day and making it contribute

the utmost possible quota to his broader knowledge and more mastery of his work. He must know men as well as books, and should steadfastly cultivate the acquaintance of men of accomplishment in every field.

To the beginner all this will seem a counsel of perfection, and so it is. It is the ideal toward which to strive. It is the vision without which the schoolman is certain to be overwhelmed by the petty details of the daily routine. No successful man is fully equipped, unless he is a self-starter. Nor is he likely to arrive at a far-away goal, unless he maintains a firm grip on the steering wheel. He must be constantly on his guard against the two dangers which most threaten the schoolman: On the one hand, he must beware of inertia, or to put it plainly, laziness; on the other hand, he must not waste away his days in ceaseless puttering around in a maze of minor matters. He must see his work in proper perspective, emphasizing each thing in proportion to its importance.

Withal, the schoolman needs the spirit of artistry in his work. As any true artist does, he must stress what he gives in service more than what he gets in salary. When the matter of salary is under discussion, he is not fair to himself and his family unless he takes all that a position has to offer. But, having done that, he had better straightway forget all about the salary, and be concerned wholly with earning much more than he is to receive. He must believe thoroughly in the infinite worth of conserving boyhood and girlhood. It must be a pleasure for him to spend himself unstintedly in the service of childhood. His constant growth will lend him unflagging zeal and enthusiasm. As Addison says in Cato, it may not be "in mortals to command success," but it should at least be possible to "deserve it." With such deserving as a foundation, and with a modicum of applied sales-

manship, a man has at least done what he could toward the solution of the problem of getting a position.

### BUILDING NEWS

—The school board of Murfreesboro, Tenn., has completed the erection of a brick Rosenwald High School for colored pupils. The building, which is located on a four-acre site, contains eight classrooms and an auditorium, and is provided with ample facilities for athletics. An additional building will be built to provide facilities for teaching the various trade subjects. The institution is a regular approved four-year high school and training school for negro students and is a model of its kind.

—The school board of Bellingham, Wash., has completed a school-building study, conducted under the direction of Mr. F. E. Bolton, of the University of Washington. The survey provides for a program covering a period of twenty years, to meet a normal and continued increase in school population in the city.

—Burlingame, Calif. By a vote of 7 to 1, the voters have approved a school-bond issue of \$130,000 for a new school building. Plans for the building have been completed and construction work will be started after the contract is let.

—Price, Utah. The school board of Carbon county has voted to defer the proposed \$225,000 school-budget program until a more favorable time. The action was taken because of the unsettled condition in the coal trade. The taxpayers had urged a program of economy in expenditures because of an increase in the per-capita cost of school operation.

—Bellingham, Wash. An educational committee of three has been appointed by Pres. C. S. Beard of the local chamber of commerce, to cooperate with the school board in the promotion of the school-building program suggested by Mr. F. E. Bolton, director of the school survey. The new program calls for the erection of a senior high school, a junior high school, four elementary schools, and additions and improvements to existing structures.





Architect: Carl C. Ade, Rochester, N. Y. WATERLOO HIGH SCHOOL Htg. Contractor: Warnock & Zahndt, Rochester, N. Y.

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*supply this building with*

### MODERN SCHOOL VENTILATION

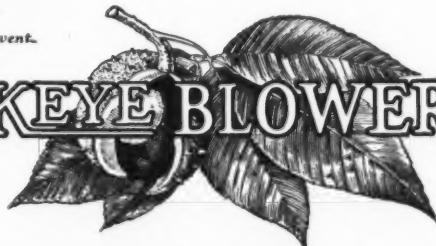


Series 100  
Buckeye Heatavent.

All classrooms of this fine new Waterloo, New York, High School are supplied with fresh, filtered, warmed air in measured amounts, and at controlled temperatures by the dependable **BUCKEYE Heatavent** Unit System of Heating and Ventilating.

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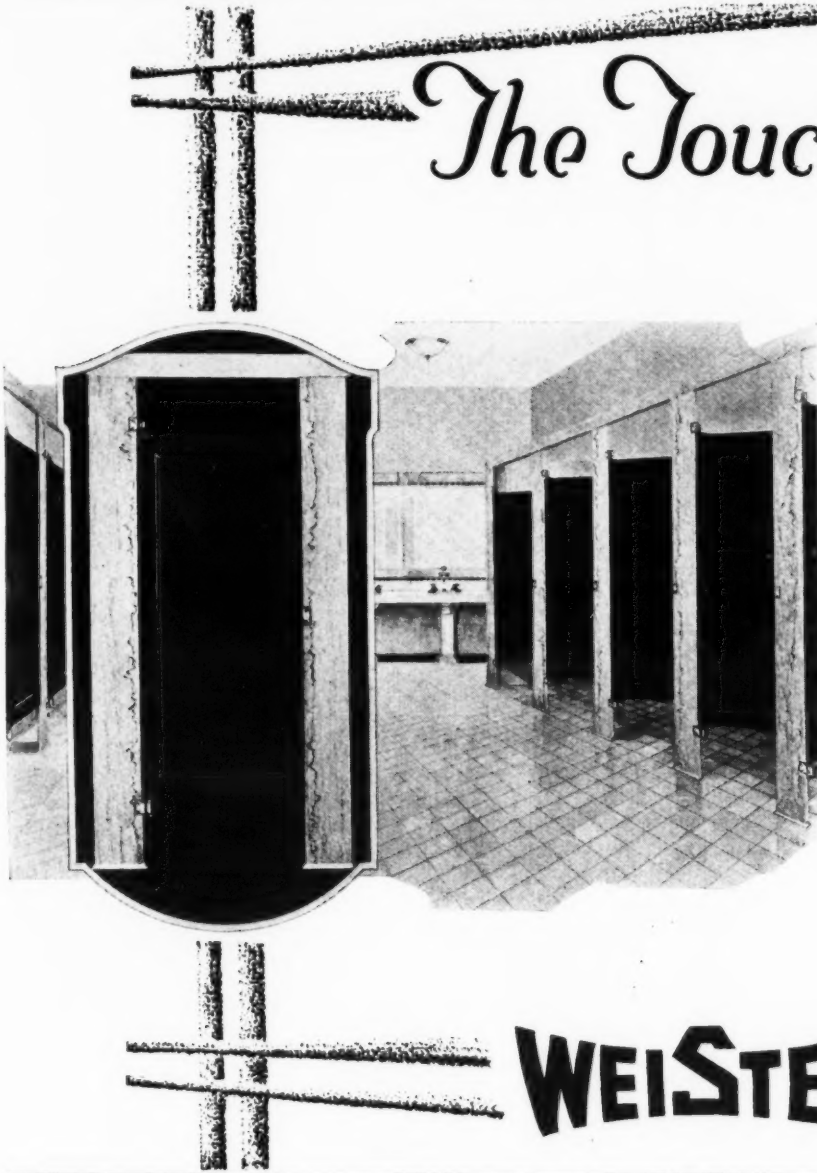
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## The Touch of Distinction

THE final touch of distinction in that school building of superior design is the new METALUNIT, to be used on lavatory stall partitions of marble, vitrolite, glass, slate, alberene stone, terrazzo, etc.

A METALUNIT is a combination of a flush or panel type door with complete set of hardware including the exclusive Weis Universal Gravity Hinge. Special reinforced construction assures many years of service through the most severe strain.

METALUNITs cannot warp nor absorb odors as do wood doors. They are furnished in many colors to harmonize with the most exacting interiors, and are shipped complete with hardware for installation.

On request, we shall be glad to send a beautifully colored folder completely describing and illustrating METALUNITs.

# WEIS

HENRY WEIS MANUFACTURING CO., INC.,  
Elkhart, Indiana.

### THE DUTIES OF PUBLIC-SCHOOL ADMINISTRATORS—X

(Continued from Page 44)

ents and principals is revealed in Table XLVIII which contains 24 administrative duties pertaining to guidance. Space limitations forbid a detailed discussion of the data presented in Table XLVIII, but some of the more outstanding features will be noted. It is apparent that public-school executives, with the exception of the elementary-school principal, give very general consideration to numerous items dealing with guidance. Among these, the duty *Advise student concerning higher education*, with a median frequency of once a month, is the most commonly performed duty although closely followed by a number of similar duties pertaining to the destination of pupils leaving school.

Guidance duties are chiefly concerned with pupils going to work or going to other schools. With the exception of four monthly duties, all of them are on a yearly or part-yearly basis. As a group, guidance duties were rated fairly high in administrative importance. Six duties were voted to be of primary administrative importance, eleven of average administrative importance, seven of minor importance, and none of no importance. About one third of the administrators served definitely as boys' adviser and approximately one sixth served as girls' adviser. About one executive in five had occasion to report pupils to the juvenile court or to welfare agencies, but only a very limited number played a part in securing mother's pensions. Despite these minor percentages, Table XLVIII, as a whole, gives evidence that school executives are genuinely concerned in the future educational welfare of the pupils in their administrative charge.

#### 5. The Transportation of Pupils

There is a set of 117 administrative duties which are totally unknown to many public-

school administrators, but which in numerous school systems call for very serious administrative consideration. These are the duties which pertain to the transportation of pupils. This evergrowing movement has assumed vast proportions in many parts of the United States and a considerable body of educational literature has become available concerning its leading aspects. The extent to which the problem of transporting pupils has resulted in administrative activity is revealed in Table XLIX.

The various performance averages presented in Table XLIX are much more significant than

the general averages given at the foot of the table would indicate, inasmuch as the total data indicate that not more than one fourth of the school systems concerned were administering transportation systems. For those schools which actually carried on transportation of pupils the figures in Table XLIX indicate a very general participation on the part of school executives, particularly on the part of superintendents and general principals.

Eight of the transportation duties were rated as possessing primary administrative value.

(Concluded on Page 135)

TABLE L. MISCELLANEOUS SPECIAL DUTIES INCLUDING SUPERVISION OF PLAYGROUND AND LUNCH PERIOD  
(Tabular arrangement and symbols as in Table XLV.)

DUTY	Percentage of Administrators Performing				Median Frequency	Median Value
	Supt.	Gen. Prin.	H. S. Prin.	E. S. Prin.		
1. Organize fire drill.....	77	93	86	83	y	1*
2. Supervise fire drill.....	77	91	81	83	m	2
3. Assign playground duties to teachers.....	66	79	37	73	y	2
4. Oversee playground equipment.....	55	68	35	73	m	2
5. Stop fights and quarrels on playground.....	51	74	35	80	m	3
6. Observe children during lunch hour.....	46	60	43	59	m <sup>3</sup>	3*
7. Promote special contest.....	40	60	32	54	y <sup>3</sup>	3
8. Organize lunch period.....	37	39	34	51	y	2
9. Engage in play activities.....	36	69	32	59	w	3
10. Help teachers on playground at recess.....	32	62	17	72	m <sup>3</sup>	3
11. Select healthful games.....	31	45	17	59	y <sup>4</sup>	3
12. Schedule recitation periods for play.....	29	40	17	29	y <sup>3</sup>	3
13. Remove animals from rooms and grounds.....	25	28	30	34	y <sup>3</sup>	0*
14. See that pupils use correct manners.....	23	29	17	44	m <sup>2</sup>	3
15. Check menu for school lunch.....	22	14	8	20	w	3*
16. Teach new games.....	21	37	16	56	m	3
17. Check number of pupils ordering lunch.....	20	17	13	17	m	3*
18. Supervise matron in charge.....	18	22	14	10	m	2
19. Persuade children to eat lunch.....	12	18	7	24	y <sup>1</sup>	3
20. Organize fire-fighting brigade.....	10	15	20	20	y	3
21. Order milk for pupils.....	9	6	3	39	y <sup>2</sup>	0*
22. Organize military drill.....	1	2	1	5	y	3
23. Direct military drill.....	1	2	0	5	y <sup>2</sup>	0*
Average.....	32	42	26	46		

\*More than one half of the judges assigned this value.



There's More to Building a Boiler Than Making It "Good Enough" . . . . . At Titusville

**DW -**  
DOUBLE WELDED



*Welding detail of head and shell and longitudinal seams.*

*write it - in your specifications*

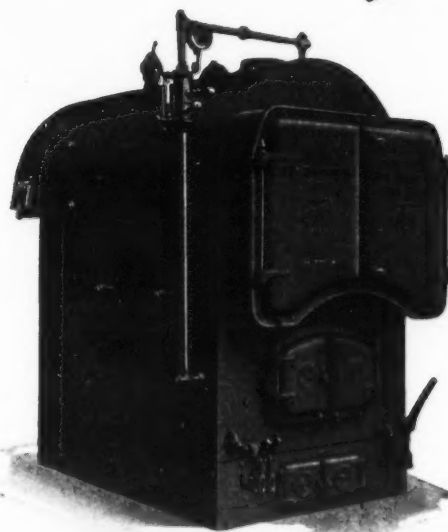
Though single welding may pass the code, Titusville Boilers are Double Welded! It isn't pride that sets that standard, it's principle.

# TITUSVILLE

## "SR" Welded Boilers

are built to have a factor of safety so great that they'll go through a train wreck (or nearly) and still be 100% perfect when you fire up. Or, to put it another way, they'll stand the strain of an unforeseen settlement of the boiler setting. Titusville Boilers are boilers plus — boilers with a structural soundness beyond that which the *resident "Hartford"* inspector certifies. Ask the man who *abuses* one.

*Have you looked over the Titusville Boiler Bulletins recently? Ask for a set.*



For compactness — specify "Titusville SR"

**THE TITUSVILLE IRON WORKS COMPANY**  
Division of Struthers Wells-Titusville Corporation  
TITUSVILLE, PA.  
Branch Sales Offices in All Principal Cities



TIW-50





This little boy can't help it. He has to use three or four ordinary paper towels to dry his hands thoroughly.



This little girl doesn't have such "expensive" hands. She goes to a school where she can dry her hands with one towel.

THE amount of water to be absorbed in drying wet hands is the same, but the absorbing capacity and speed of paper towels differ amazingly.

Bay West Mosinee Dubltowls have 73 times quicker absorption and  $4\frac{1}{2}$  times greater strength than ordinary paper towels. The finest towel service in America costs less because fewer towels are used.

One—just one—Dubltowl dries the hands thoroughly. Thus, more than a thousand school systems and thousands of students are receiving a daily lesson in economy and conservation from the use of Bay West Mosinee Towels. Mail the coupon today for towel facts of interest to you.

BAY WEST PAPER CO., Green Bay, Wis.

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Send facts about Bay West Mosinee Towel  
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of the average heating season is mild weather when overheating occurs. Dunham Differential Heating has the wide range of control that maintains uniform room temperatures throughout the entire season eliminating overheating. Fuel savings of 25 to 40 per cent are common.

Look for the name  
DUNHAM  
This nameplate identifies  
a genuine Dunham Ther-  
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The Dunham Differential Vacuum Heating System and individual parts of the apparatus used in that system are fully protected by United States Patents Nos. 1,544,114, 1,706,401 and 1,727,965 and Canadian Patents Nos. 282,193, 282,194 and 282,195. Additional patents in the United States, Canada and foreign countries are now pending.

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Over 80 branch offices in the United States and Canada bring Dunham Service as close to you as your telephone. Consult your local directory. Dunham engineers are at your service with complete and authoritative data on improved heating to meet your individual requirements.

Many existing heating systems can be converted to Differential operation at moderate cost. These change-overs will pay for themselves. Dunham engineers will survey present systems without obligation.

## Avoid Fire Stampedes

The mad rush for exits is often more fatal than the fire itself.

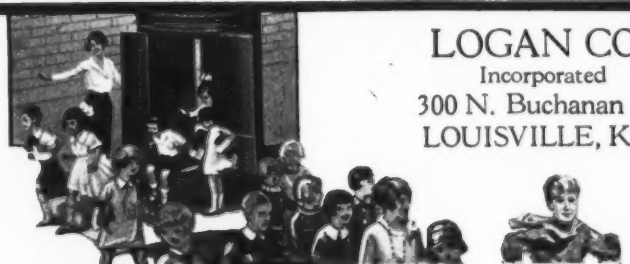
But there can be no stampede in the Logan Spiral Slide. There are no steps. Simply a smooth slide to safety.

Let us send you full information about the fastest, safest, and surest means of exit from upper floors.

Write today.



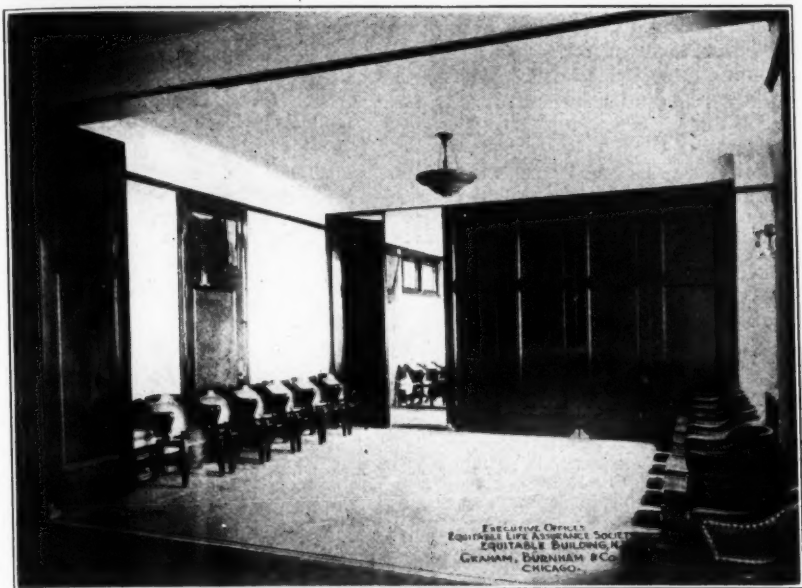
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[" This partition designed by J. T. Fairhurst, in 1915—fifteen years' service, without repairs or adjustments. "]

Fairhurst Folding partitions are the acme of perfection . . . simplified in every respect . . . eliminating noise or friction . . . mis-alignment of floors or building settlement cause no trouble . . . all adjustments are automatic . . . Doors cannot be folded except when in proper position . . . locking device at top and bottom prevents moving . . . except when doors are correctly placed . . . odd or even number of doors may be used . . . sliding from either end . . . or from center to both ends . . . single pin cylinder lock . . . in end door . . . controls the whole partition.

—Is the Best Specification.

Not Suspended . . .

No Visible Hardware . . .

No Bolts . . . No Hinges

. . . All Adjustments Automatic . . .

Odd or Even Number of Doors

This Company has been manufacturing high class mill work for buildings since 1855 . . . enjoying a well known national reputation . . . thus guaranteeing high class work . . . and complete elimination of all troublesome mechanical operating parts. . . At last a perfect folding partition!

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**PARK WINTON & TRUE CO.**

Manufacturers

for

Fairhurst School Wardrobes and  
Folding Partitions

Catalog

101 Park Ave.

New York

1855-1930

(Concluded from Page 132)

These duties relate chiefly to the organization and supervision of transportation. As has been true with practically all of the sets of duties considered in this series of articles, the judges did not regard such detailed duties as *Supervise seating of pupils* in truck or such clerical duties as *Do transportative clerical work* as being by nature of any administrative importance. For the most part the duties given in Table XLIX are comparatively simple and direct, meriting little additional comment. Undoubtedly as the work of transportation becomes more standardized, many of the duties now performed by administrators will be delegated to other school officers.

## 6. Miscellaneous Special Services

Finally we come to consider as the last of the one thousand duties which make up the work of public school administrators a group of 23 miscellaneous special-service duties including those devoted to fire and military drills, the supervision of playgrounds, and the supervision of lunch periods. These four types of special service have little in common save that they all border upon health services and that they are more popular with the elementary-school principal than with any of the other executives. Two duties connected with fire drills are the most commonly performed by all types of school administrators and two duties connected with military drill are the least commonly performed. With the single exception of the duty, *Organize fire drill*, none of the 23 duties is considered to be of primary administrative importance, and only five are considered to be of average importance. Three duties, *Remove animals from rooms and grounds*, *Order milk for pupils*, and *Direct military drill*, were voted to be without administrative value. The first of these three duties was

performed by over one fourth of all the administrators concerned.

Numerous interesting facts are revealed by a study of Table L, such as the fact that considerably over one half of the executives stopped fights and quarrels on the playground, and the fact that military drill is in very general disfavor, but further consideration of details must be left to the reader's own interest and initiative.

(To be concluded)

## EXECUTIVE REALISM IN SCHOOL ADMINISTRATION

(Concluded from Page 45)

more marked when one comes to complex objects such as human beings. Similarly, individual differences are clearly to be noted between schools and systems of schools. The many varying factors of community environment, financial means, legal stipulations, tradition, equipment, housing, climate, teaching talent, school-board membership, administrative and student personnel, make for settings that give rise to executive problems of distinct individuality.

## THE HOME TEACHER

(Concluded from Page 52)

ing to do the personal unkindness to the persons dismissed of giving the public the unvarnished facts and unless, secondly, the board be in position to command the public to receive these facts. "A friend in need is a friend indeed," to be sure, but it must not be overlooked that the "need" may be subjective or objective. It makes a difference.

In conclusion, therefore, it may be stated that a board of education may justify the adoption of a policy barring home teachers, both on the score of insuring for itself greater freedom in providing for the educational welfare of the boys and girls intrusted to them, and on the score of fair and just treatment of their graduated "boys" and "girls."

## SAFETY FOR SCHOOL CHILDREN

As the result of several serious accidents, the school authorities of the State of Ohio will tighten up the rules governing the schoolbus service. Attention is called to the law which provides that:

"The vehicles shall be of such construction as to afford the driver a practically unobstructed view of the roadway ahead and also to his right and left. It shall be the duty of the driver engaged in the transportation of children to bring the vehicle to a full stop before crossing the track of any railroad or interurban line and not proceed across such tracks until absolutely certain that no car or train is approaching from either direction. The failure of such driver to bring his vehicle to a full stop at a crossing is a misdemeanor, punished by a fine of \$50 for the first offense and \$100 and imprisonment, not exceeding 30 days, for subsequent offenses."

—Rigid inspection of the 52 busses which carry between 5,000 and 6,000 Cuyahogo county children to and from school, has been started by Mr. R. R. Weygandt, state inspector on the staff of the Cleveland Automobile Club, as a result of the recent accident to a school bus near Berea. The busses will be inspected in the various districts, and the drivers will be examined at the offices of the club.

## PART-TIME REDUCED IN NEW YORK CITY SCHOOLS

Overcrowding in the elementary and junior high schools of New York City has been considerably relieved with the opening of the new semester in February. A total of thirteen new buildings have been opened, providing for a total seating capacity of more than 24,000 pupils.

Of the thirteen buildings, four provide more than 2,000 sittings and eight offer more than 1,000 sittings. Public School 104, the Bronx, with seats for 2,250 students, was opened on March 1. Public School 142, Queens, has 1,284 seats and cost \$775,000, and Public School 223, Brooklyn, has 2,700 seats and cost \$1,190,000.



# Index of School-Bond Prices<sup>1</sup>

Harold F. Clark, Teachers College, Columbia University, New York, New York

School-bond interest rates rose slightly during the month of January. After having fallen for three months, interest rates rose .07 per cent. The net interest rate of all bonds sold in January was 4.81 per cent. This compares with the December rate of 4.74 per cent. The rate is still well under the level of any month of the last half of the year 1929, except December.

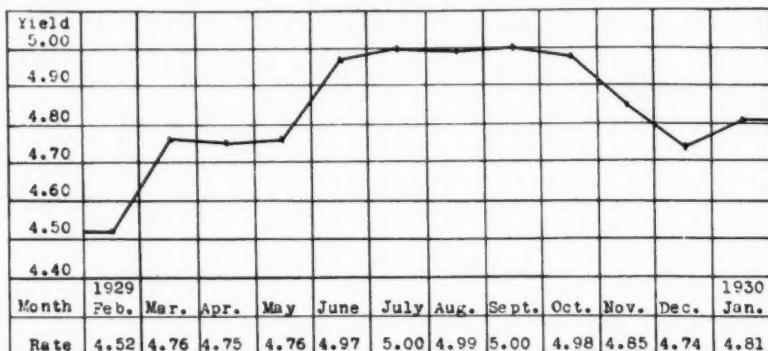


TABLE I. AVERAGE YIELD OF ALL SCHOOL BONDS SOLD DURING THE MONTH

Schoolmen will naturally be interested in the cause of this shift in prices. The flood of bonds on the New York market was the essential reason for the change in price. The Harvard Economic Service had this to say about the situation — "Resumption of security flotations in more normal form since January was an important favorable development though it *weakened bond prices* and retarded the decline of money rates. Though the easing in money rates may go further, it will probably be checked by seasonal commercial demands which usually begin to appear toward the end of February and by

TABLE II  
Amounts and Yields of Bond Issues<sup>2</sup>

1. School bonds sold during the month of January	\$ 21,698,700
2. All municipal securities sold during year (to date)	107,204,000
3. All school bonds outstanding (estimated)	3,266,000,000
4. Average yield of all school bonds outstanding (estimated)	4.65%
5. Yield of school bonds of ten large cities	4.42%
6. Yield of United States long-term bonds (quotation the middle of February)	3.41%

<sup>2</sup>The monthly total of school bonds does not include all the bonds issued in the month, due to the difficulty of obtaining the yield on some of the issues.

continued large security flotations." The total volume of bonds offered during January on the New York Market was well over \$600,000,000.

The total school-bond sales during the month of January were over \$21,000,000. This is larger than

issues. If this turns out to be the case, bond prices may not show any pronounced improvement for some time. In which case if bonds must be sold within the next few months, there may be no greater advantage in postponing the sale.

Call money reached 4 per cent during the month of January. If this rate or a lower one becomes quite common as a call rate, schoolmen may well

TABLE IV  
Average Yield of Long-Term Federal Government Bonds<sup>3</sup>

Past Twelve Months	Rate %	Year	Rate %
1930		1928	3.437
Feb. ....	3.44 <sup>6</sup>	1927	3.464
Jan. ....	3.43 <sup>6</sup>	1926	3.544
1929		1925	3.797
Dec. ....	3.46	1924	4.010
Nov. ....	3.45	1923	4.298
Oct. ....	3.67	1922	4.301
Sept. ....	3.70		
Aug. ....	3.72		
July ....	3.67		
June ....	3.71		
May ....	3.67		
April ....	3.67		
Mar. ....	3.76		

<sup>3</sup>Taken from Federal Reserve Bulletin.  
<sup>6</sup>Not final.

consider the possibility of issuing short-term notes.

One of the few sales which has been made in many months on a net interest base of less than 4 per cent, was a Commonwealth of Massachusetts issue sold during the month of January. According to press reports, the bonds sold on a basis to yield 3.91 per cent. A part of this exceedingly low rate is due to the favorable financial position of Massachusetts, part to careful selling, and undoubtedly part due to favorable location in relation to credit markets.

The low school-bond issue during the month was sold at 4 per cent. Only rarely in recent months has a school-bond issue sold at this rate. On the other hand, a small issue in the State of Oklahoma sold

TABLE III  
Bond Sales and Rates<sup>3</sup>

Year	Schools	Municipal	All Public and Private	Year	Average Rates
1929	\$230,000,000 <sup>4</sup>	\$1,432,000,000 <sup>4</sup>	\$10,194,000,000 <sup>4</sup>	1929	4.67 <sup>4</sup>
1928	218,000,000	1,414,000,000	8,050,000,000	1928	4.45
1927	266,000,000	1,509,000,000	7,776,000,000	1927	4.49
1926	260,000,000	1,365,000,000	6,344,000,000	1926	4.61
1925	323,000,000	1,399,000,000	6,223,000,000	1925	4.58
1924	288,000,000	1,398,000,000	5,593,000,000	1924	4.26
1923	206,000,000	1,063,000,000	4,303,000,000	1923	4.76
1922	237,000,000	1,101,000,000	4,313,000,000	1922	4.81
1921	215,000,000	1,208,000,000	3,576,000,000	1921	5.18
1920	130,000,000	683,000,000	3,634,000,000	1920	5.12
1919	103,000,000	691,000,000	3,588,000,000	1919	5.04
1918	41,000,000	296,000,000	14,368,000,000	1918	4.90
1917	60,000,000	451,000,000	9,984,000,000	1917	4.58
1916	70,000,000	457,000,000	5,032,000,000	1916	4.18
1915	81,000,000	498,000,000	5,275,000,000	1915	4.58
1914	42,000,000	320,000,000	2,400,000,000	1914	4.38

<sup>3</sup>By special permission, based upon sales reported by the Commercial and Financial Chronicle.

<sup>4</sup>Not final.

the sales in December and represents a considerable advance over the average in recent months. With any pronounced slowing up in this rate of issuing bonds, prices might improve somewhat. Schoolmen should be on the lookout for any such signs, although, as suggested by the Harvard Economic Service, the prospects are for continued large

<sup>1</sup>Copyright by Harold F. Clark.

on a basis of 6.50 per cent. There is clearly too much difference in price to be justified on any other basis than lack of proper financial planning in some cases.

Table III gives the preliminary estimates on bond sales for 1929. According to the reports of the Commercial and Financial Chronicle, there is a slight increase in the school bonds in 1929 as com-

TABLE V  
Security Prices and Yields<sup>7</sup>

Date	Average Price of 406 Stocks	Average Price of 60 Bonds	Average Yield on 60 High-Grade Bonds
1930			
February	158.6 <sup>8</sup>	96.3 <sup>8</sup>	4.65 <sup>8</sup>
January	156.3 <sup>8</sup>	96.4 <sup>8</sup>	4.64 <sup>8</sup>
1929			
December	153.7	96.5	4.64
November	151.1	95.7	4.70
October	201.7	95.1	4.73
September	225.2	94.8	4.76
August	218.1	95.0	4.74
July	207.2	95.2	4.73
June	190.7	95.3	4.73
May	187.8	95.7	4.70
April	186.6	95.8	4.69
March	189.1	95.8	4.69

<sup>7</sup>As reported by Standard Statistics Company, Inc. Used by special permission. 1926 average = 100.  
<sup>8</sup>Not final.

pared with 1928, although the total was substantially under several other recent years. The situation was much the same in regard to total municipal issues, the total in 1929 being larger than in 1928, but not so large as in 1927. A sensational increase occurred in the total of public and private security sales, the amount going over ten billion dollars for the first time except during the war. The preliminary estimate for the average rate of interest shows an increase that would be expected.

Table IV shows that the interest rate on long-term government bonds has not kept up to the decline of recent months. This was to be expected in the light of general conditions of the market.

Table V shows that January registered a substantial increase in the average price of stocks. This increase has doubtless drawn some money from the bond market. The slight decrease in the price of the bonds indicates this.

TABLE VI  
Revised Index Numbers of Wholesale Prices<sup>9</sup>

Past Twelve Months			Past Six Years		
Month	All Com- modities	Building Materials	Month	All Com- modities	Building Materials
1930			1928	97.7	93.7
Feb.	94.1 <sup>10</sup>	96.1 <sup>10</sup>	1928	97.7	93.7
Jan.	94.0	96.0 <sup>10</sup>	1927	95.4	93.3
1929			1926	100.0	100.0
Dec.	94.2	96.2	1925	103.5	101.7
Nov.	94.4	96.0	1924	98.1	102.3
Oct.	96.3	97.8	1923	100.6	108.7
Sept.	97.5	97.5			
Aug.	97.7	96.7			
July	98.0	96.7			
June	96.4	96.4			
May	95.8	96.8			
April	96.8	97.9			
Mar.	97.5	97.8			

9United States  
Labor Statistics,  
1926—100.

10Not final

<sup>9</sup>United States Bureau of Labor Statistics, 1926-100.  
<sup>10</sup>Not final.

Table VI shows that the price of all commodities is holding fairly steady. The price of building materials is showing very small change with some tendency toward weakness in certain fields.

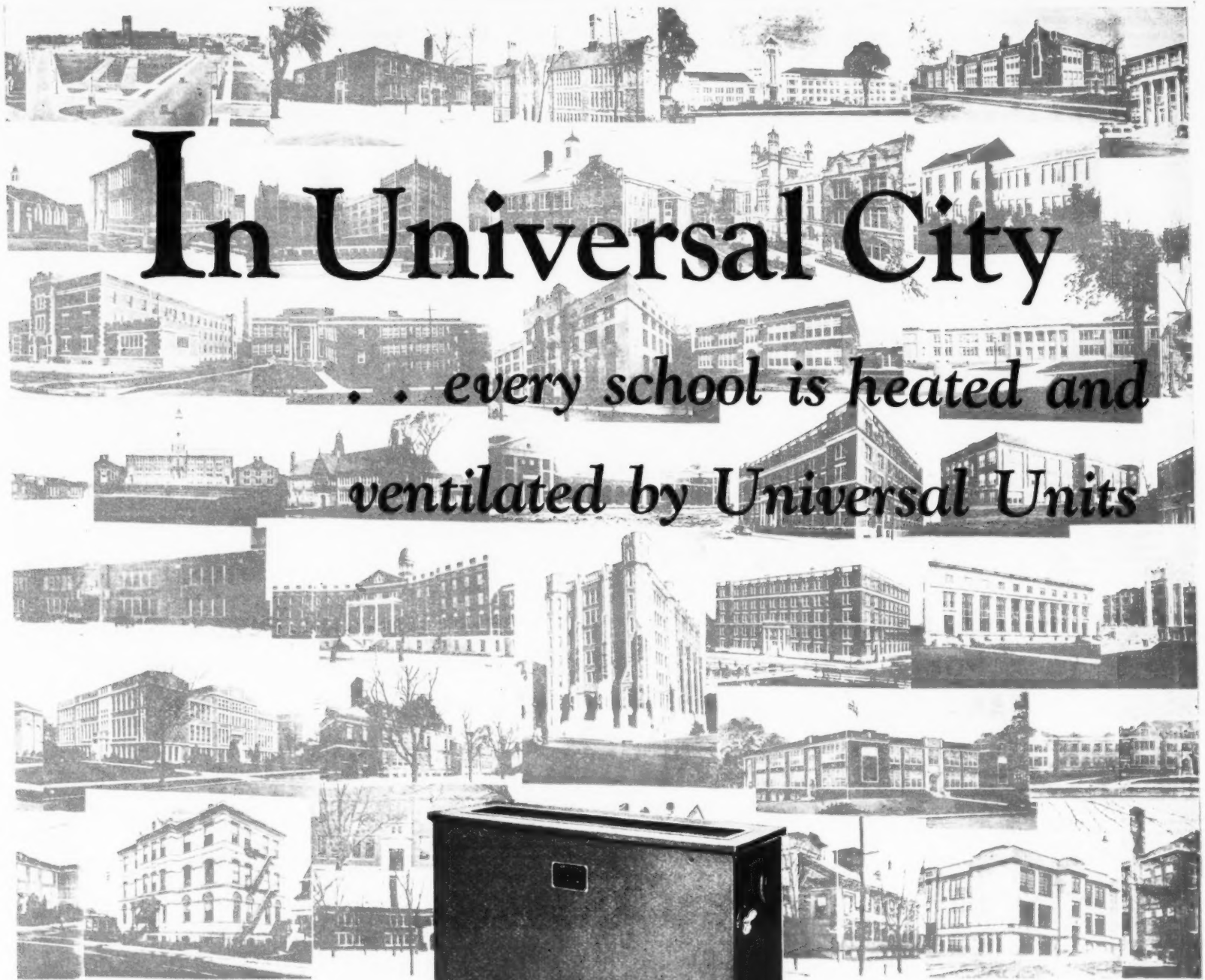
## CENTRALIA TEACHERS ENJOY BENEFITS OF SICKNESS INSURANCE CONTRACT

Among the many advantages afforded the school faculty at Centralia, Washington, is health insurance contract with a local cooperative medical institution, the Sweet Clinic. For a small fee of \$1 per month, each teacher is protected from financial care and embarrassment for hospital bills and medical and surgical care during illness.

A number of the teachers, both near and far from their homes have taken advantage of the arrangement. The plan has insured adequate care and treatment for restoration to health, and has removed the financial worries which often attend long illness and absence from school duties. A number of teachers who had insured themselves against illness have been able to have dental work done and operations performed, and to attend to other aspects of health which were in need of immediate attention.

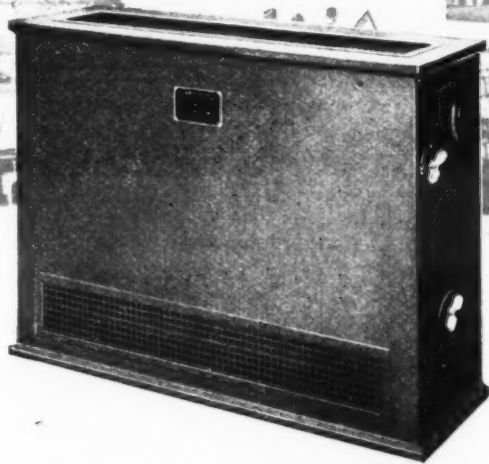
In November, one of the teachers was in the Sweet Clinic for treatment for a severe cold. Following a series of ultra-violet-ray treatments, the teacher returned home, but again returned for an operation for mastoid. The teacher returned home, singing the praises of the medical and surgical efficiency of the hospital.





**Y**OU'LL not find *Universal City* on the map . . . yet it comprises the citizenry of tomorrow—healthy boys and girls upon whom rests the destiny of America's future.

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**FOR BY PERFECTING EACH UNIT OF THE PLUMBING INSTALLATION TO A POINT WHERE ITS SERVICE IS UNERRING, CRANE CO. HAS FACILITATED FOR CHILDREN THE FORMATION OF HABITS OF CLEANLINESS AND SELF-RESPECT.**

## VENTILATION VIEWPOINTS

(Concluded from Page 51)

ridors being kept at practically the same level as that of the classrooms. This system is therefore a distinct economy both in cost of construction and of operation and assures comfortable corridors and the avoidance of the usual sharp difference of temperature encountered in passing from classrooms into corridors.

Certain other features of the Springdale project are important in the ventilation plan. The end wall of each classroom, between the class area and the wardrobe, contains an extensive and versatile cabinet for schoolroom use. It has been deliberately developed as a means of eliminating all screens, cabinets, and service tables, which break up floor space and create pockets or mechanical obstacles to free movement of air. The accompanying photograph shows the cabinets as provided, one with closets for upper grades and the other with pigeon holes for work of individual pupils in lower grades where tables and chairs are used instead of desks.

Further, all ventilators are set in a manner that prevents the harboring of dust and facilitates dust removal.

### Floor Cleaning and Ventilation

The method of cleaning bears a very definite relationship to air hygiene. Therefore, the building is provided with a central vacuum cleaning system. In order that the janitor may reach all parts of the room with a minimum of effort, especial thought was given to the location of the vacuum outlets in the several rooms. Almost without exception they are located in the center of the front wall, which, at the end of the aisles, we have found to be the point that makes possible the use of minimum length of vacuum hose.

Floor cleaning we do not regard as aesthetic merely, but a most important health measure.

Our floors are treated by a process which fills all cracks, hardens the wearing surface, and makes dust removable an assured fact. Nothing harbors dust. "You have the cleanest schoolhouse in the state," was said to a Stamford school principal recently. That is our objective: the cleanest floors, the cleanest rooms, the cleanest air. It can result only from well-thought-out hygienic routines.

With the increasing demands for schoolhouse construction, questions of cost and maximum usefulness become major considerations. In the Springdale school we feel that we have gone far toward a satisfactory answer to both questions.

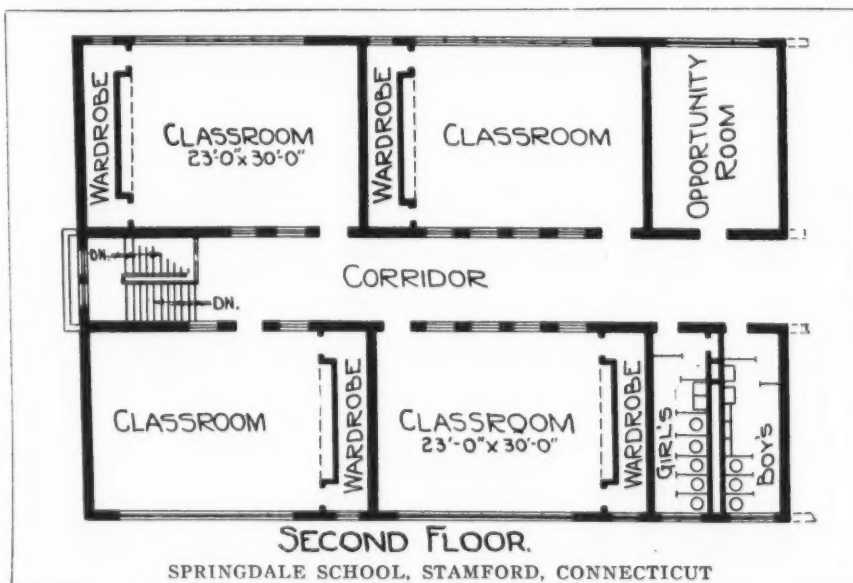
We have here an addition accommodating 280 pupils and having a cubage of about 230,000 feet. It has been erected and equipped at a cost of \$120,000, which includes modernizing the older building and rejuvenating the heating

plant of the entire school.

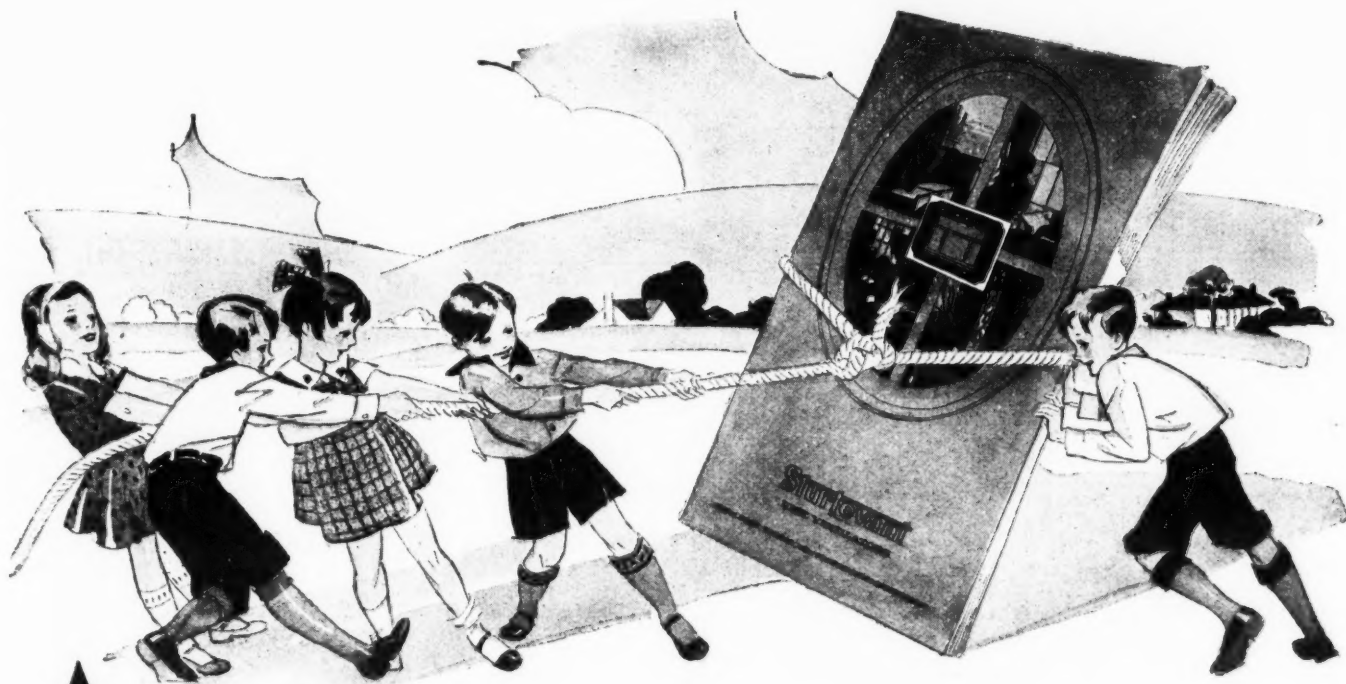
The educational area is 11,200 sq. ft. The standards of the National Education Association are as follows: walls and partitions, 10 per cent; stairs and corridors, 20 per cent; flues, 3 per cent; instruction, not less than 50 per cent.

A study of the Springdale plans show only 9 per cent given to walls and partitions, only 14 per cent given to stairs and corridors, and the entire absence of flues. As the result of these savings in space, instead of the 50 per cent of area available for instruction, the fundamental objective of the whole plan, we have in this building 67 per cent of the floor space devoted to this purpose. This is an unusually high instructional rating and speaks well for the care with which the building was planned.

While the Springdale addition is not large as compared with many of our other buildings, yet it is of large significance, embodying as it does the results of a long and careful study of school planning, heating, ventilation, and cleaning, factors of maximum importance in determining the efficiency of the school in meeting the needs of the children, in matters of health as well as of education.





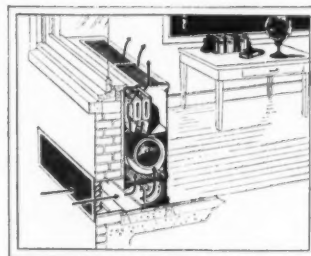


# Architects, Trustees, Superintendents Principals — — — should all be familiar with this book!

OF all rooms where the air should be clean and healthful, independent of out-door heat or cold or noise or dust, a *classroom* should come first!

Modern engineering has brought relief and contentment, through Sturtevant Unit Heater-Ventilators, to the occupants of rooms that were once stuffy, overheated or underheated. Classroom air conditions are now made constant and controllable. Air is always changing. Drafts are done away with. Uneven heating is overcome.

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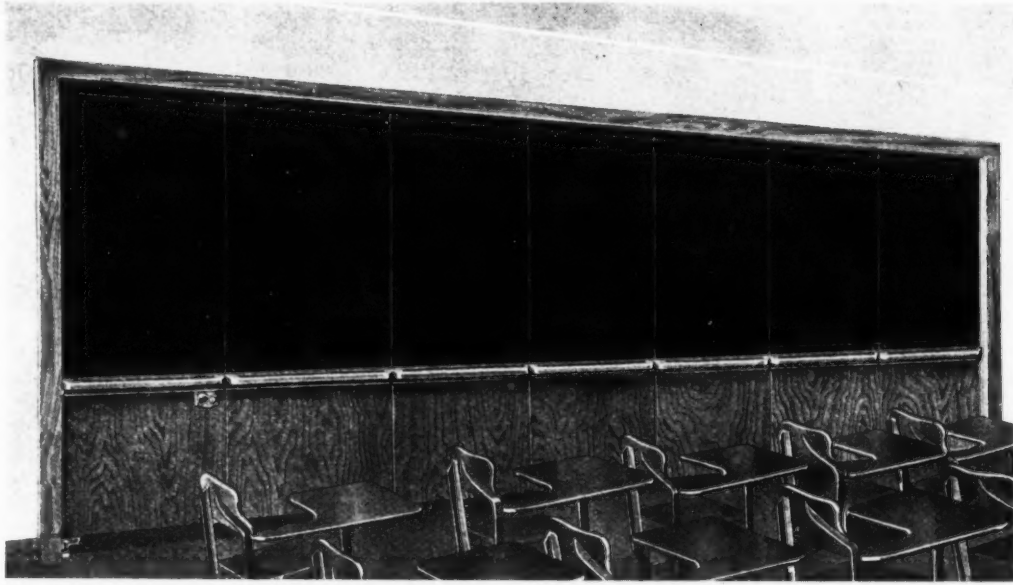
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explanation of the single control multiple operation principle. Visualize the simple beauty of these wardrobes installed in your school-rooms! All hardware is solid bronze. All doors operate on ball bearings, silently. Two doors are mounted on one leg. Blackboard equipment if desired. Write for prices NOW!

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### ADMINISTRATION

—Fillmore, Utah. The consolidated school district of Millard county, Utah, maintains a fleet of 17 school busses for transporting 770 high-school students to the three consolidated high schools in the district. The busses travel nearly 10,000 miles each month and carry students to high schools from towns as far as 20 miles. The average distance traveled by the students is 14 miles. There are 4 one-teacher schools and 20 consolidated schools in the district.

—The rural-school supervisor of the Ohio state department of public instruction, reports that the consolidated schools rate 21 per cent higher than the one-room schools. In comment on this finding, the Evansville, Indiana, *Courier* says: "Figures like these make one wonder more than ever whether the 'little red schoolhouse' of venerated memory was ever all it is pictured in the roseate fancy of grown-up graduates."

—In his monthly circular, addressed to the principals and supervisors, Supt. Frank A. Bouelle, of Los Angeles, California, discusses the subject of gifts made to the schools. He says: "Principals are requested not to accept gifts of any kind, unless such gifts are of an acceptable nature and will not tend to embarrass the department in any way. No gift should be accepted that will afterward require installation or upkeep by the board of education, unless a definite understanding had been reached before the acceptance of the same."

—Fillmore, Utah. During the present school year, Stanford achievement tests are being given to all elementary-school pupils in Millard county. All 12-year old pupils in the county were selected for special study and observation. It was noted that the boys varied educationally from 8 years and 4 months, to 17 years and 7 months; the girls varied from 8 years and 6 months, to 15 years and 10 months. The average chronological age of the boys was 12 years and 5 months, while their average educational age was the same; the girls had a chronological age of 12 years and 6 months, and an educational age of 12 years and 9 months. There were 112 boys and 102 girls belonging to this age group in the county schools.

—A department of child guidance has been established at Pelham, N. Y., as an integral activity of the board of education. The department consists of a psychiatrist, a full-time social worker and visiting teacher, and a half-time psychologist. The work of the department is designed to reach the elementary schools, the junior, and senior high schools.

—Bay City, Mich. Standardized tests were recently given to all the pupils in the public schools. A short time later Mr. V. E. Chase, director of research in the Fordson schools, gave an address to the grade-school teachers on the subject, "Learning by the School Child."

—During the past six years the administrative department of the Mobridge, S. Dak., school system has used the Thorndike probability curve as the basis for marking and grading the pupils enrolled in the schools.

Under the plan, each teacher prepares, at the end of every six weeks' period, a graph of all the grades for that period. The building principal prepares a graph of all the grades for his or her own building, and the superintendent in turn makes a graph for the entire system.

The value of the system of grading is in the uniformity which it establishes. If, out of a class of thirty, a pupil would have the fifth best rating, he would be classed number five in his group, and would fall into either the B or C group. The plan provides for the following groups:

A. Near genius, very superior. Three to five per cent fall in this group.

B. Superior, above average. Twenty to twenty-five per cent fall in this group.

C. Average work. Fifty per cent fall in this group.

D. Below average, inferior, doing passing work. Twenty to twenty-five per cent fall in this group.

E. Failing, not passing. Three to five per cent fall in this group.

—A recent report on school attendance in Park City, Utah, shows that the average daily attendance of pupils in elementary, junior high, and senior high schools during the first six weeks' period of this year was 97.3 per cent of the total enrollment.

—The average annual school term in rural com-

munities is 27 days shorter than in urban schools. This information is given out by Katherine M. Cook, of the U. S. Office of Education. The result of this difference is something like one and one-third year in total schooling. Per-pupil current expenditures, based on average daily attendance, is in round numbers \$100 in urban, \$62 in rural communities; the total per pupil cost \$129 in urban, \$75 in rural communities; the average value of school property per pupil enrolled is \$299 in urban and \$99 in rural communities; and the average salary of all teachers, supervisors, and principals, \$1,787 in urban, \$855 in rural communities. The average salary of teachers in one-teacher schools widens the already large gap, being \$748.

—Coalville, Utah. A school cafeteria was recently opened in the North Summit High School, to accommodate the 200 out-of-town students. The cafeteria is in charge of the domestic science department, which supplies a balanced lunch at the small price of 20 cents per person.

—A handbook for school-bus drivers and boards of education in Ohio is being prepared by Mr. Frank E. Wilson, chief of the state division of publications, working under the direction of State Superintendent J. L. Clifton. The booklet is to contain the best regulations available so that transportation may be made more efficient and the lives of the school children better safeguarded.

—The state education department of Ohio, in a recent statement, reports that 123,643 pupils in county districts, 3,230 in city districts, and 5,482 in village school districts were transported to and from school each day, making a total of 132,346 pupils transported. Based on a nine-month's school term, it would mean that 23,822,280 school passengers were transported.

These children were transported by 286 horse-drawn vehicles owned by the board, 337 horse-drawn vehicles not owned by the board, 1,183 motor-driven vehicles owned by the board, and 2,536 motor-driven vehicles not owned by the board. This makes a total of 623 horse-drawn vehicles and 3,721 motor-driven vehicles. The trend in Ohio at present is toward more board-owned vehicles.



# SCHOOL LIFE...

Interiors at the Camden County Vocational School, Camden, N. J., are handsome, well lighted, spotlessly clean. And lastingly so, for the building is painted throughout with Barreled Sunlight.

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—from cellar to roof—for inside and out**

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**Lignophol**—This penetrating preservative prevents splintering, checking, warping, and rotting by filling interior wood cells and fibres with oils and gums. Supplies a toughening binder that increases tensile and resisting power of wood. Safeguards floors against deterioration from dry heat and moisture, and waterproofs.

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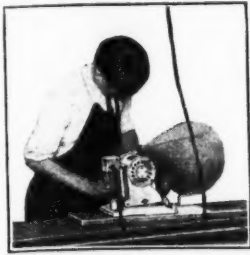
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# MAINTENANCE COSTS GO DOWN

## When the CLARKE Vacuum Portable Sander GOES TO WORK



Ideal for teaching practical woodworking in the manual training department.

### A Boy Can Run It

Weighing but 22 pounds (31 lbs. with floor handle), the Clarke can be carried about with one hand. No great exertion is required to use it. The power and speed of the machine replace effort by the operator. It works in the same manner and almost as easy as a vacuum cleaner. No special wiring is required. Plug into any electric light socket and go to work. No dust or muss—the powerful, in-built vacuum gets it all. Sturdy, dependable—backed by 13 years of experience and improvement in building portable sanding machines. A definite, written, positive guarantee of performance goes with every Clarke.

CLASS-ROOM desks, teachers' desks, tables, laboratory benches, drawing boards, floors, corridors can always be spic and span, new looking. Scratches and scars can be forever banished from school furniture.

And at an amazingly low cost! Simply equip your school with a Clarke Vacuum Portable Sander.

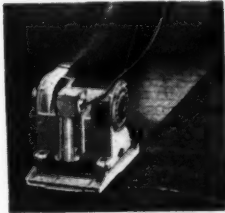
The engineer or janitor can operate it. The skill for fine work is built into the Clarke. This powerful, fast-cutting machine will surprise you by the quality and quantity of work it will do.

Refinish a whole room full of old scarred desk tops in one day, at the rate of one each four minutes or less. No need to remove the desks. No muss, either. A powerful vacuum gets all the dust. Varnish immediately after sanding.

On floors, the Clarke is guaranteed to refinish to velvety newness, from 300 to 1,000

square feet of old, varnished floor in 8 hours. No varnish remover needed, either. On average school floor work, the Clarke will do up to 3,000 square feet in 8 hours.

Schools all over America are reducing maintenance costs, improving quality and amount of maintenance work done, by using the Clarke Vacuum Portable Sander. Get the complete facts about the machine. You will readily see its advantages to your school. Send the coupon today.



Restores 300 to 1,000 sq. ft. of old varnished floor to velvety smoothness in 8 hours.

### In Demand for Manual Training

Teaching wood-craft with the Clarke is gaining in popularity. Boys like to work with the same powerful, sturdy machine that is used in the foremost wood-working shops of the country. Instructors appreciate the thoroughness with which they can teach the trade. And economy results from the two-fold use of the Clarke—Manual Training at class time, Maintenance work at other times.

## CLARKE SANDING MACHINE CO.

Dept. G-43, 3821 Cortland St., Chicago, Ill.

Originators and, for 13 years, Manufacturers of Portable Sanding Machines.



Re-surfaces a scratched desk in 4 minutes or less, without dust or muss.

### Ask the Teachers

Ask the teachers about the value of smooth, shiny desk tops; bright, even floors; the appearance of newness in benches, tables. Neatness and care are developed in pupils and an inspiration to do better work results. Or ask the health official for his opinion of the value of smooth floors, shiny desks, in place of rough, scarred furniture and floors. Ask the janitor about the ease of keeping clean the rooms with velvety floors, about the time saved in sweeping and the more thorough job possible. The Clarke Vacuum Portable Sander gives you these benefits.

## GET THE FACTS TODAY

SEND THIS COUPON

Clarke Sanding Machine Co.,  
Dept. G-43, 3821 Cortland St., Chicago, Ill.

Gentlemen: Without obligation to me, please send the complete facts about the Clarke Vacuum Portable Sander for schools. I am interested in the economies you promise.

Name.....

Address.....

City..... State.....

☐ Maintenance Work ☐ Manual Training

## SCHOOL-BUSINESS ADMINISTRATION—ARCHITECTURAL DESIGN, PLANS, AND SPECIFICATIONS

(Continued from Page 51)

out their hands coming in contact. In the City of Rochester, a width of 24 ft. is required for 5 rows of desks in order to get more room for general exercises that they demand.

We accept lower ceiling heights than 12 ft. for schoolrooms where the capacity does not exceed 30. In that event, we accept the lower height of ceiling, a narrower width of room, a width ample for 4 rows of desks instead of 5, and a length sufficient for the requisite number of pupils based upon the unit of 200 cu. ft. of air space per pupil. In many of the small districts, schools that we have with a maximum attendance not exceeding 15 or 18, we accept still less ceiling height with other dimensions adjusted accordingly.

The air-space and floor-space standards with us are statutory. The window placement and glass area are not. All in all, we find the following dimensions recommended by us several years ago are almost universally followed in both city and village schools, and also in rural schools where the attendance is 25 or more. By adopting this unit, we have room for 5 rows of desks, an average of 3 ft. for the outside aisles, 18 in. for the inside aisles, 16 2/3 sq. ft. of floor space per pupil (1 2/3 sq. ft. above statutory standard) and 200 cu. ft. of air space per pupil.

Mr. F. R. Scherer, assistant superintendent of school buildings, Rochester, New York, writes:

Rochester has attempted, on several occasions, to reduce the size of its standard classroom to a width less than 23 ft. 9 in. A very careful study was made of this less than three years ago, following the suggestion of an "expert" employed by our city administration to point the way in reducing school-building costs. Sketch plans were made showing furniture arrangement in the various classrooms and special rooms, several conferences were held with the directors of the various branches in education, the superintendent of schools and his staff, and the conclusion reached was that if any change be made it should be to increase the width rather than to reduce it. In order that you may understand, however, why a room of this dimension is essential, it must be related that the classrooms are along the corridor walls; there are relaxation drills held in each room two or three times a day; and radiators are placed under the windows

along the outside walls—all of which demand additional room, for example:

In placing the wardrobes along the corridor wall, it is necessary that this aisle be made about 1 ft. 2 in. wider than usual to permit egress while some of the pupils are at the wardrobes; the relaxation drills demand sufficient width of aisles to permit the children to march in double time and in performing other setting-up exercises; and the radiators placed on the exterior walls demand additional width in that particular aisle.

Our classroom length is 30 ft. from wall to wall. This is very satisfactory in our room arrangement. Should the wardrobes be placed at the rear of the room, however, additional length would be necessary. The writer has knowledge of some cities that use classrooms 32 ft. long, but the general standard is 30 ft.

There is considerable to be said with reference to the height of ceiling. Up until a year ago, the Rochester schools were built varying between 12 ft. 4 in. and 12 ft. 6 in. Our buildings now under construction and design are for ceiling heights of 12 ft., and we expect that this will remain our standard for some time to come. We have one school building which has a ceiling height of 11 ft. 4 in. Here we constantly experience difficulty in obtaining proper ventilation by a central fan. Tests made in this school show that the diffusion is poor and the air motion too variable to assure comfort, notwithstanding the fact that the air enters at a velocity of less than 300 ft., the bottom of the inlet register being 8 ft. from the floor. For academic work, we are following the rule that a room should not exceed in width twice the height of the window head jamb from the floor. We shall exceed this width, however, for laboratories and shops.

My leaning at this time would be toward a classroom 30 ft. long and 12 ft. high, of a width not less than 12 ft. and whatever is necessary by reason of special factors in your curriculums.

Professor A. C. Moehlman, of the University of Michigan, writes:<sup>2</sup>

The reason we decided not to decrease the ceiling height below 12 ft. in the Detroit schoolrooms was due to the fact that this would automatically cut down the width of the room, because the refraction of the natural lighting does not permit of a lower lighting than 12 ft. in a room 22 ft. wide in order to get perfect lighting on the last row of seats. If you desired

<sup>2</sup>Professor Moehlman was formerly connected with the Detroit city schools.

to cut down to 20 or 21 ft., I could see no objection to it, but I am not certain it would be satisfactory. At any rate, Detroit decided against transferring, because a room 22 ft. wide gave the best opportunities for unit instruction.

Mr. HuBert C. Eicher, Director of the Bureau of Buildings for the State of Pennsylvania:

We consider a 22-ft. width minimum for elementary-school purposes. Little people must have greater freedom than the more mature pupils. A congestion of seats, narrow aisles and limited space about the walls is not conducive to the best results.

We have made various investigations of ceiling height and from the results obtained we cannot justify a ceiling height of less than 12 ft. in Pennsylvania. In certain types of construction some architects have difficulty in securing the required amount of glass area and its proper placement even in a 12-ft. ceiling. I am not, therefore, able to go along with those who would advocate an 11-ft. ceiling, at least for the present.

We have made some studies in regard to proportionate length and width of classrooms. From our studies it would seem that a width of 21 ft. with a length of 30 ft. 6 in. is approaching the abnormal in regard to proportions.

Mr. C. M. Hirst, supervisor of buildings and grounds for the State of Arkansas:

We have been requiring 12-ft. ceiling heights for grade rooms in this state.

I know of no state or community that accepts lower ceilings for grade rooms than 12 ft.

Mr. H. W. Schmidt, supervisor of buildings for the State of Wisconsin:

The state code calls for a 12-ft. height, and we have never found it necessary to reduce this. The ratio of room to height of window seems a good one, and in practice has given adequate illumination on the seats farthest removed from the window. We have also found the 22-ft. width necessary in order to get adequate aisle space. I do not know of any other municipality which accepts a ceiling lower than 12 ft. It would seem with modern ventilating requirements that this height is necessary to give adequate air movement without serious vitiation, and at the same time, permit a reasonable amount of air for recirculation.

Again it must not be forgotten that the trend is to increase the number of pupils that a thoroughly efficient teacher can handle. We have plenty of evidence that an expert teacher can handle 45 pupils with efficient teaching methods.



# Sunlight is Healthy

## Draper Shades recognize that fact

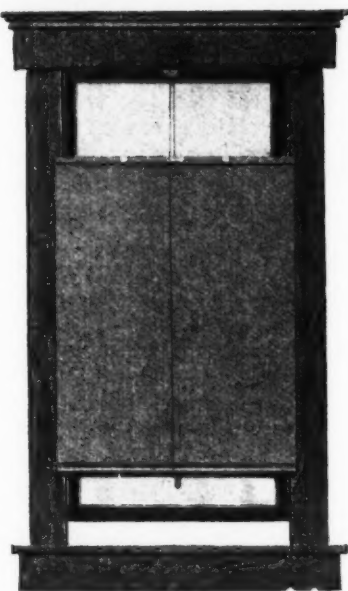
Draper Shades have been designed to let in the sunlight. But light won't harm the pupils. It is beneficial and necessary to their proper development. Only the sun's glare is the harmful factor. Draper Shades keep the glare out and let the light in.

Draper Adjustable Shades can be adjusted to any desirable position upon the window. This permits greater benefit from the light and air and allows better ventilation.

These shades embody all the finest developments in shade making. They are noiseless, easier to handle and less likely to get out of order. And with Draper Adjustable Shades in your school you will find that maintenance costs have dropped to an almost negligible figure.

*Samples and details on request.*

**LUTHER O. DRAPER SHADE CO.**  
Spiceland, Indiana



# ARMA-COTE

## The Modern Finish for FLOORS

All of the beauty of wax with none of its defects. It will not track or mar. As easily cleaned as a Dresden plate. The modern floor finish for schools.

*Attractive proposition to jobbers where we are not represented.*

CHURCHILL  
MANUFACTURING  
CO.

Sioux City, Iowa.



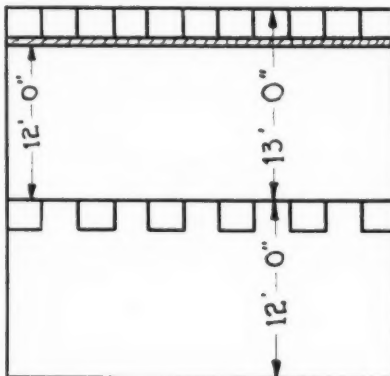
Hard-and-fast state-department rules often definitely determine the height of ceilings and width of rooms. While many may question the wisdom of such rules, it will be found, on reflection, that it is a wise precaution to have such regulations for safety and uniformity. But unlike the laws of the Medes and Persians, these state laws should be subject to amendment when proof of their inconsistency is demonstrated.

Thus the rule that "the width of a classroom shall be twice the height of the window jamb from the floor," which appears in the school-building codes of a number of states, is based upon certain principles of light refraction. Yet in any given school no two rooms have the same exposure; the sun is not in the same position any two days in succession; the weather conditions are not the same any two days in succession. The kind of glass used in the windows may change the lighting conditions completely; and if the rule as applied to the south and east sides of the building were accurate, it follows that the ceiling heights should be greater for all north and west rooms.

The consensus of opinion seems to approve 12-ft. ceilings and 22 ft. as the proper width of classrooms.

Classrooms usually have a flat, plastered ceiling supported by wire lath on the under side of the floor beams. By omitting the flat, plastered ceiling and leaving the beams exposed, approximately 1 ft. in ceiling height is gained. This means that in the theoretical building specified under Item 10, a reduction of 1 ft. in ceiling height may be made, which, at 30 cents per cubic foot, would save \$10,752, based upon a reduction in cubical content figured as follows:

2 ft. in total height (2 stories)  
56 ft. width of wings (two 22-ft. classrooms, plus 10-ft. corridor, plus two outside walls of a



SECTION OF CLASSROOM SHOWING ECONOMY DUE TO OMISSION OF CEILING

thickness of 1 ft. each)  
160 ft. approximate length of building  
30c per cubic foot assumed cost of construction  
 $(2 \times 56 \times 160) \times 2 \text{ wings} \times 30c \text{ equals } \$10,752.$

Here again, for illustrative purposes, great liberty has been taken in the computation. The computation does not include the connecting corridor between the wings nor the width of corridor partitions, nor other refinements of measurement. The illustration is used merely to stress the point at issue.

(To be continued)

### CHATS DURING RECESS

The school janitor's union of Detroit, Mich., protested against the rule which ordered the school janitors to clear the walks after a snowfall. The contention was that shoveling snow brought on pneumonia and rheumatism. A high medical authority said: "I have been handling cases of pneumonia and rheumatism 30 years and never heard of either disease being contracted through shoveling a little snow. That a man was warm when he went out would help keep up his temperature. If he shoveled snow hard enough, he would be all right, it seems to me. Any danger would be mental rather than physical. Shoveling snow ought to help the individual himself, and it would be certainly splendid for the school system."

### PERSONAL NEWS OF SUPERINTENDENTS

—MR. HENRY TURNER BAILEY, art authority and director of the Cleveland School of Art at Cleveland, Ohio, has recently become a member of the advisory faculty of the American School of the Air, which has been inaugurated over the Columbia Broadcasting System. Mr. Bailey, in a statement, said that radio broadcasting is one of the greatest assets to education since the invention of the printing press. He believes that the quality of knowledge broadcast by the School of the Air will be extraordinary, for it will come from people of wide experience, deep learning, and high reputation. High-powered instruction will come through dynamic teachers, and a great body of alert students will welcome its advantages and inspiration.

—PROF. HENRY EVERETT DEWEY has been appointed principal of the University High School of the University of Chicago, succeeding Robert C. Woellner. Professor Dewey holds the degree of A.B., given by Kalamazoo College, and also an A.M. degree given by Oberlin College. He was superintendent of schools of Ohio from 1917 to 1925, and was in charge of extension work at the Pennsylvania State College until last June, when he went to Chicago to resume his work for a Ph.D. degree.

—MR. G. L. MCCULLOCH, who was elected superintendent of schools at Jackson, Mich., has declined the position. Mr. McCulloch prefers to remain in the capacity of assistant superintendent.

—MR. N. J. QUICKSTAD, superintendent of schools at Mountain Iron, Minn., was the principal speaker at the annual meeting of the Eveleth Chamber of Commerce.

—MR. F. H. GILLILAND, of Sibley, Iowa, has been elected superintendent of schools at Devils Lake, N. Dak. Mr. Gilliland, who succeeds Nelson Sauvain, takes over his duties in September, 1930.

—MR. HARRY C. MASON, of Blissfield, Mich., has been reelected for another two-year term, at an increase in salary.

—MR. EMANUEL SCHOENBERGER has been elected superintendent of supplies for the board of education of Philadelphia, Pa., succeeding the late M. L. Savage. Mr. JAMES F. WILLIAMS has been named as assistant superintendent of supplies.



## Less Noise Better Work

**Y**OUR students become better students — your teachers better teachers—when you subdue distracting school-room noises.

Acousti-Celotex applied to the ceilings of your school building will quiet disturbing noises in classrooms, assembly halls and corridors. It improves the acoustics of lecture halls, auditoriums, music halls . . . subdues the racket of manual training rooms.

Acousti-Celotex is a noise-absorbing cane-fibre tile that comes in single, finished units—durable, permanent, and easily cleaned. These units are quickly installed in the ceilings of old buildings or new.

Write for our interesting folder, "Better Study Conditions in Schools." The services of our engineers are available to help you solve your acoustical problems. The Celotex Company, 919 North Michigan Avenue, Chicago, Illinois.

The word  
**CELOTEX**  
(Reg. U. S. Pat. Off.)

is the trade mark of and indicates manufacture by  
The Celotex Company, Chicago, Ill.

## ACOUSTI-CELOTEX

FOR LESS NOISE - - BETTER HEARING

## Your Daughter's School



Are you certain your daughter would escape in case of fire, or would she be caught in the mad panic that so often crushes out the lives of loved ones when central stairways and exits are used?

**The POTTER**  
*Tubular Slide*  
**FIRE ESCAPE**

the only fire escape with service records approved by the Underwriters' Laboratories.

POTTER Tubular Slide Fire Escape carries the pupils away from the danger zone to the outside of the building, landing them safely on their feet without the slightest danger from panic, gases or smoke.

**POTTER MANUFACTURING CORPORATION**  
1858 Conway Bldg. Chicago, Ill.



## 85 ROUND TRIPS FOR ONE CENT

Remarkably low current cost  
pleases school board officials

**T**HE popularity of G&G Electric Ash Removal Equipment with school officials throughout the country is due in no small measure to the extremely low operating cost.

To get at actual operating figures we had unbiased engineers of the Sprague Electric Works test a Model E G&G Electric Telescopic Hoist of the type illustrated above.

Filled cans weighing 150 lbs. were raised electrically and lowered by gravity. Distance of lift between cellar and grade level was 16 ft., 8 inches, and current cost \$.0348 per k.w.h.

This test showed that:

296 cans were raised and lowered in one kilowatt hour.  
15½ tons of ashes were raised in one kilowatt hour.  
85 round trips of filled cans between cellar and grade level were made for one cent current cost.

These figures would not apply to every installation, because distance of lift and current rate per k.w.h. vary.

G&G Ash Removal Equipment is now in use in schools in 44 states, and is *standard equipment* with Boards of Education in many large cities.

Write for catalog

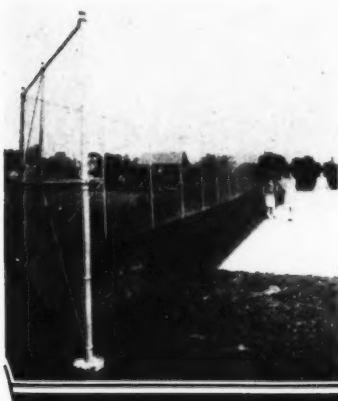
**GILLIS & GEOGHEGAN**  
551 West Broadway, New York



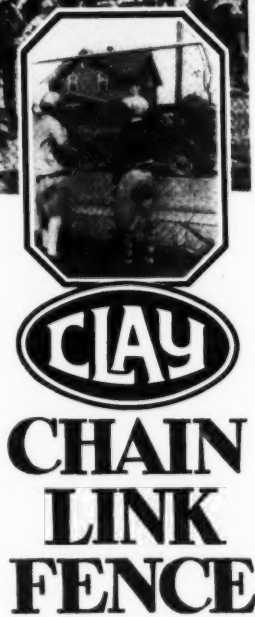


## for Children

Protect the School children. The best insurance against tragic accidents is Clay Chain Link Fence. Enclosed school yards keep children off the streets and protect them from motor traffic while at play. School officials welcome the relief from responsibility occasioned by enclosing school yards with Clay Chain Link Fence.



Showing Clay Chain Link Tennis Court Backstop.



Attractive appearance—rust resisting coating of zinc—no care or attention required. Ask us for estimates. Our engineering department is at your service.

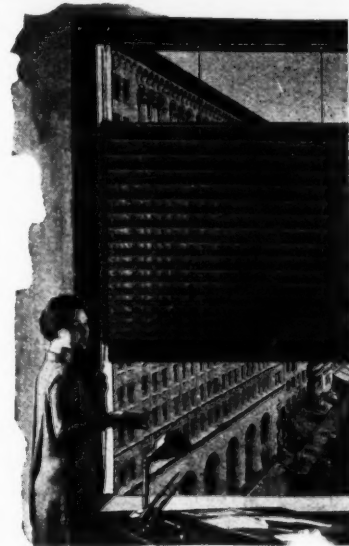
**CLAY EQUIPMENT CORPORATION**

Dept. A.S.B., Cedar Falls, Iowa.

## The Ideal Shades for School Windows give light and ventilation without glare

Athey Shades are ideal for Schools and Colleges.

They are not wooden slats, and have no rollers, springs, catches or latches. They do not have to be jerked for adjustment. They may be lowered from the top, allowing a flood of soft light to reach the back of the room. Besides being practical, they are the most beautiful and attractive shades ever devised for modern schools, colleges, offices, etc.



The teacher or students never touch the shade with the hands. Shade operates noiselessly and smoothly.

*Athey*

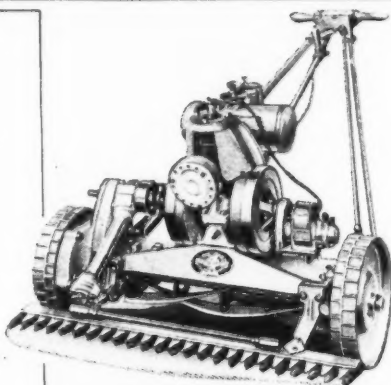
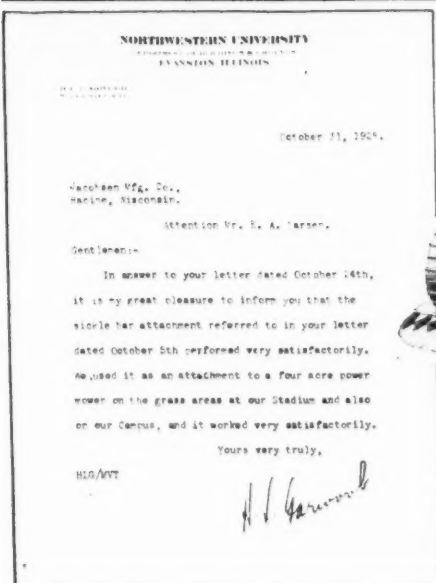
Accordion Pleated Window Shades and Metal Cloth Lined Weatherstrips

Send for catalog now.

**ATHEY COMPANY**  
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In Canada—Cresswell-Pomeroy, Reg'd, Montreal and Toronto



## Cut Your School Lawns

With a  
**JACOBSEN**  
Power Mower

Schools and colleges in all sections of the country, as well as parks, cemeteries, putting greens and estates have found economy and lawn beauty in using

Jacobsen Power Mowers. Even in Europe, many estate gardeners prefer the Jacobsen to prominent foreign makes.

## Simple to Operate . . . Low Upkeep Cost

The Jacobsen 4-Acre Power Mower with Clipping Attachment, which Northwestern University writes about, cuts a 24-inch swath. It has enclosed gear drive, independent control of traction and cutting units, self-sharpening reel and many other Jacobsen developments. The Sickle-Bar Clipping Attachment sets ahead of the regular cutting reel and nips off the dandelions, buckhorn or plantain

while the lawn is being mowed. The Jacobsen "Junior" Power Mower has a 19-inch reel and is suitable for moderately large lawns or lawns with numerous obstructions and terraces. There is a size and type of Jacobsen Mower for every lawn.

Jacobsen Mfg. Co.  
Dept. AS,  
Racine, Wis.

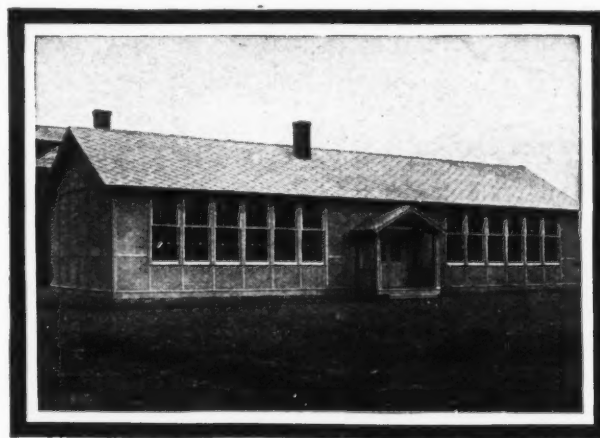
Mail the Coupon for free booklet: "Lawns Beautiful." Demonstrations gladly given on your own grounds without obligation.

**Jacobsen Mfg. Co.**  
Dept. A. S., Racine, Wis.  
New York Office: 507 W. 56th St.

You may mail free booklet: "Lawns Beautiful" to

Name .....

Address .....



## Safety and Permanence

To the school board executives who are looking for fire-safety and permanence in school room facilities, and who hesitate at the high cost of masonry construction, yet dare not risk the fire hazards present in flimsy, wooden structures—this is directed:

Ambler Asbestos school-houses are the result of careful study of best educational standards. With walls and roofs of strong asbestos construction, well planned lighting and ventilating systems, and pleasing architectural details—they are a credit to your community and unquestionably a sound investment. Delivery is prompt and erection rapid.

Let us send you our catalog.  
Write for it today.

**Asbestos Buildings Company**  
Dept. J

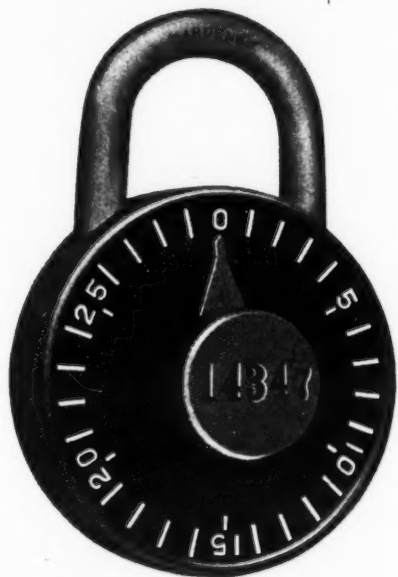
Liberty Title and Trust Co. Bldg., Philadelphia, Pa.

**AMBLER**  
**FIREPROOF ASBESTOS**  
**SCHOOLHOUSES**



# YOUR PROBLEM SOLVED

**N**O LONGER need you suffer the many disadvantages of lost keys with the attendant interruption of routine, together with the fear of locks being opened by keys in the possession of other than the rightful owners. Neither must you be fearful of prying fingers opening apparently secured locks. The BARRETT KEYLESS LOCK, designed after careful study, removes all of the lock hazards of the past that combined to make a very serious problem for YOU.



THE BARRETT KEYLESS LOCK

The BARRETT KEYLESS LOCK has no keys to be lost or misplaced. It cannot be left on combination on the locker. It cannot be turned back to combination after once being turned off, and it must be turned off combination, otherwise it will reveal the fact that it has not been securely fastened. Think what this means: It is now possible for you to prevent your students leaving their locks in such position that they can be turned back to combination by a slight turn of the knob; a practice that has resulted in numerous thefts in the past, dishonest persons being quick to take advantage of this condition.

It is also impossible to turn the BARRETT KEYLESS LOCK off combination while it is in use. It has no springs to become defective or broken, and it will not spring open under a blow. Its steel shackle and bolt are case hardened and rust proof, as are all other parts. Another distinctive feature is that BARRETT KEYLESS LOCKS are furnished with your school colors embodied on the dial and knob or with standard black and white dial as shown in illustration, without extra cost.

You can better appreciate its many advantages by personal inspection. We will be extremely pleased to furnish a sample upon request.

## The Barrett Keyless Lock:

- Cannot get out of order.
- Cannot be left on combination.
- Cannot be turned back to combination.
- Cannot be turned off combination while open.
- No springs to rust, break or fail to function.
- Entirely rust proof interior, with brass outer case.
- Easily read dial, with option of color combinations.
- More than 25,000 combination changes.

## BARRETT LOCK COMPANY

4720 North Eighteenth Street

Philadelphia, Pa.

### NEW YORK CITY DISTRICT SUPERINTENDENTS RATED

A special committee of three has been appointed by the New York City board of education to examine the qualifications and rate the application of school administrative heads aspiring to the office of district superintendent of the New York City schools.

A standard form of application blank, similar to that used in rating the high-school principal applicants, has been used for aspirants for district superintendent. Under the heading of experience in supervision and administration in schools, the would-be superintendent must indicate the type of school in which the experience was gained, rather than the amount of time each week devoted to the work, as was the case with principals.

The blank asks for information concerning the degrees held by the candidate; the additional professional, pedagogical, technical, cultural, or academic courses pursued; the courses the candidate has given; the applicant's teaching experience; his experience in supervision and administration in schools; the investigations he has conducted; his contributions to education in the form of books, lectures, addresses, or experiments; devices, syllabuses, methods, tests, new types of work inaugurated; travel, and executive positions held in professional or civic societies.

### PERSONAL NEWS

—MR. C. R. McCLELLAND, superintendent of schools at Monessen, Pa., has announced his resignation, to take effect at the end of his present term on July 1. Mr. McClelland has been connected with the Monessen schools for the past fifteen years, and has been superintendent for six years.

—SUPT. H. S. FREEMAN, of Mobridge, S. Dak., has been reelected for a new two-year term, beginning with July 1.

—SUPT. HUGH G. FAUST, of Shawnee, Okla., has recently been reelected for a new three-year term, beginning with July 1. Mr. Faust is completing his sixteenth consecutive year in the Shawnee schools.

During the past three years, the city has had a tremendous growth in population and the school population has reached 8,000.

—SUPT. JOHN F. CRAMER, of Grants Pass, Oreg., has been reelected for a new three-year term. Mr. Cramer was recently elected as president of the city superintendents' section of the Oregon Teachers' Association.

—SUPT. W. A. WALLS, of Kent, Ohio, who was recently elected president of the Ohio Society for Crippled Children, was honored on February 11, at a luncheon of the local rotary club when the membership extended congratulations to him. A special resolution prepared by a committee of five, was drawn up and presented to Mr. Walls.

—MR. E. H. KORSTAD has been reelected principal of the senior high school at Mobridge, S. Dak., and Mr. S. M. Stockdale of the junior high school.

—MR. WILFORD MCCUTCHESON has been elected superintendent of schools at Princeton, W. Va., for the school year 1930-31.

—MR. R. O. BAGBY, formerly superintendent of schools at Buena Vista, Va., has been appointed supervisor of classroom instruction in the public schools of Roanoke. Mr. Bagby, who entered upon his duties March 1, is a graduate of Iowa University, in the class of 1911, and of Columbia University, in the class of 1922.

—MR. STANLEY W. JONES has been appointed a member of the board of education at Rahway, N. J., to succeed MR. JOHN J. QINN.

—MRS. J. W. PRESTON has been elected a member of the school board of Roanoke, Va., to complete the term of Mrs. A. P. Staples who resigned.

—The school board of Princeton, W. Va., has organized with the election of MR. R. W. BROWN as president. MR. P. I. LILLY as secretary, and MR. O. B. CAMPBELL and MR. C. W. PECK as members.

—MR. H. D. FEARON has resigned as a member of the school board at Oneida, N. Y., after a service of 35 years, a large part of which was given as president of the board. MR. EDWARD L. HASKELL has been elected to succeed Mr. Fearon as president.

—MR. EDWIN F. NELSON has been elected as business manager of the board of education at Hartford, Conn.

—MR. M. G. PECK has been reelected as president of the school board of Ashtabula, Ohio.

—MR. GROVER GRUNDISH has been reelected as president of the school board of St. Mary's, Ohio.

—MR. L. U. HULIN has been reelected as president of the board at Youngstown, Ohio.

—MR. C. J. STROBEL has been reelected as a member of the school board of Sandusky, Ohio, which will be his thirty-eighth consecutive year of service. Mr. Strobel was president of the board twenty-five years ago.

—MR. DAVID L. FISHER has been elected as president of the school board of New Philadelphia, Ohio. MR. A. A. STERMER was reelected as clerk-treasurer of the board.

—The school board of Bucyrus, Ohio, has reorganized for the year, with the reelection of MR. H. E. COOK as president, DR. B. F. RUTHRUFF as clerk, and MR. H. A. PAXTON as vice-president.

—MR. W. M. MANK has been reelected president of the school board of New Philadelphia, Ohio, for his eleventh consecutive term.

—MR. F. E. MCCLAIN has been reelected president of the school board of Lima, Ohio. MR. W. C. DERBYSHIRE was reelected as clerk of the board.

—MISS LILLIAN ARMSTRONG has been reelected as president of the school board of St. Mary's, Ohio. MR. T. A. WHITE was elected as clerk.

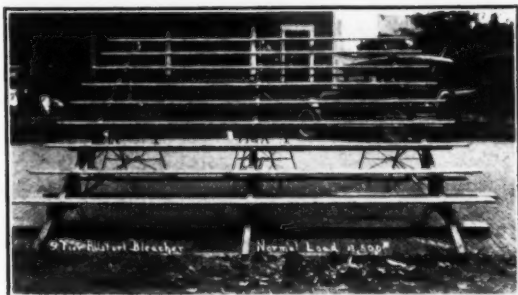
—Supt. M. C. Potter, of Milwaukee, Wis., has issued a ruling that commercialism on school grounds is strictly forbidden. The rule which is clear and mandatory, is intended to forestall all trade talks by salesmen.

### MISS OLIVE JONES RETIRES

The New York Principals' Association, on February 15, gave a testimonial dinner for Miss Olive Jones, former president of the association, on the occasion of her retirement from the school system. Representatives of city and state school systems, as well as the National Education Association were present at the dinner.



## STEELBILT BLEACHERS For SAFETY



STANDARD 9 TIER SECTION—  
NORMAL LOAD 13,500 LBS.

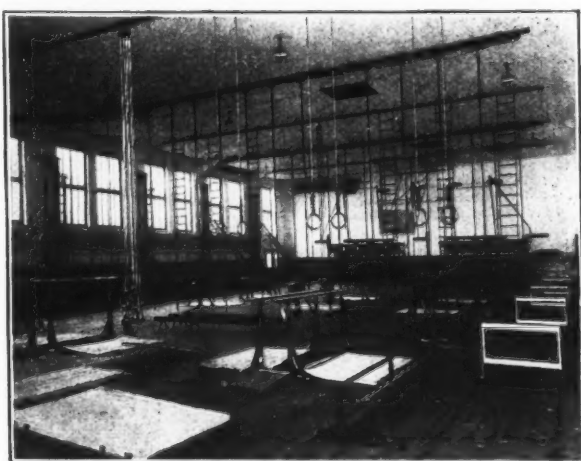
In a recent test made by Prof. E. M. Daniels of Carnegie Institute of Technology, 62,430 lbs. of iron were loaded on the above section of STEELBILT BLEACHERS. This unusual test proves the safety with which crowds may be accommodated.

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A SHADE ADJUSTER that will give a high degree of satisfaction.

As you use it you will be well pleased because of its superior qualities and easy operation.

The above are very broad statements; especially so in view of the many failures in Shade Adjusters of the past. Broad as these statements are, we feel justified in making them not only because of our own experience with this new Adjuster, but because of what others, who are qualified to judge, say of it.

In connection with this Adjuster, the shade and shade-rollers are exactly the same as generally used. No hitching on to wall or casing is necessary.

No arrangement of shade and roller has ever made the control of light and ventilation so simple and so complete.

The vital parts have a large reserve of strength, making a very strong and durable window equipment at less than one-half the cost of the Venetian Blind.

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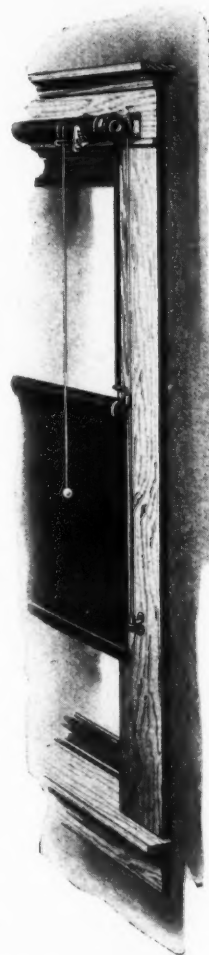
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forget—but a  
Jewel doesn't*



SEAT-ACTION closets are preferred for school installations, since children so easily forget the things they should do. Yet there is a distinct advantage in JEWEL Auto Pneu Matic Water Closets over ordinary seat-action outfits, because of the Jewel Flush Valve.

This famous valve has no interior springs to rust or corrode, nothing to cause trouble, and no valve for constant adjustment!

A JEWEL gives positive valve action, the valve being linked to the seat itself. Schoolhouse architects and officials endorse the JEWEL—write for descriptive literature and learn about the Jewel five-year guarantee, a further feature of Jewel installations!

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Springfield, Ohio

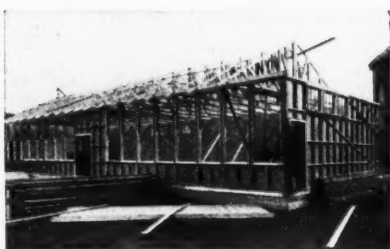
**JEWEL AUTO PNEU MATIC  
WATER CLOSETS**

Guaranteed for 5 Years



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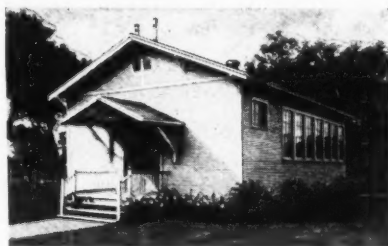
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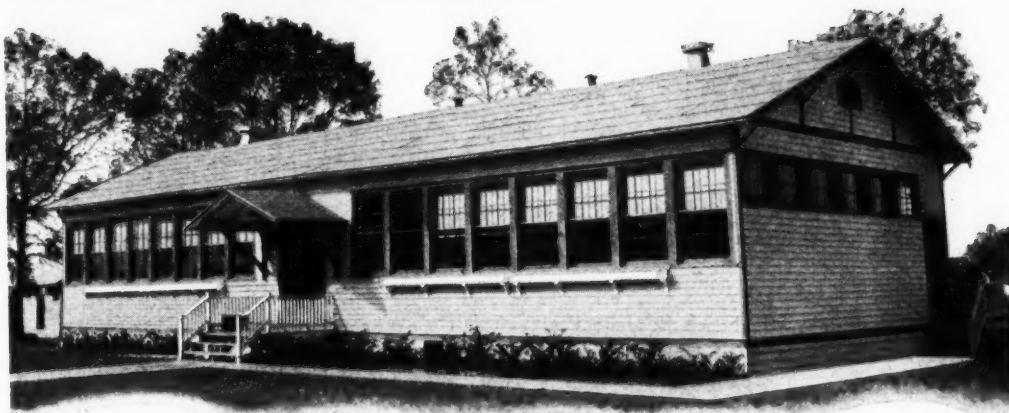
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*Schools in All Sizes to Meet Every Community Need*



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#### CHICAGO CORRESPONDENCE

Due to the fact that no taxes have been paid by the people for nearly two years, the city, the schools, and the county are in a financial predicament, with no relief in sight until the reassessment is completed and taxes paid. The date of completion of the reassessment has been estimated at about July 1, certainly not earlier than June 1.

Meanwhile, about 40,000 school, city, and county employees are not being paid. The teachers have already missed two pay days. Pres. H. Wallace Caldwell, unable to sell 1930 tax-anticipation warrants in Chicago, has tried to sell them in New York, to no avail to date.

Even if successful in the sale of anticipation warrants, apparently there will be no funds with which to operate the city and the schools the latter part of the year. The schools cannot get by the last two months of the year even if 1928 taxes are paid. Almost certainly there will have to be a special session of the legislature to revise the entire structure of school support.

Meanwhile, the teachers are wondering what should be done. It is a foregone conclusion that they cannot operate without pay until June or July. Yet, every proposal to get cash to operate the schools meets the objection of some group necessary to put the plan across.

The banks refuse to loan the school board money to pay the teachers. The school board might issue scrip, but that plan might do no good. Teachers would almost certainly have to discount it at about 90 cents on the \$1. The banks have indicated that they will not even discount it at any price. The county commissioners have been on the verge of paying county employees with scrip of small denomination so that employees might pay the local merchants with scrip. However, the merchants have served notice that they will not accept such paper in payment for goods.

All Chicago is organized into groups, each of which plays a part in the final settlement of the financial situation. The banks are well organized and seem to be controlling the situation at present. Critics of the banks and their attitude charge them

with high-handedness. They are inclined to think that the big organized banks are actuated by a combination of civic or political motives on the one hand, and cupidity on the other. For example, one aim of the banker group is said to be a city manager for Chicago, instead of the present plan. They are alleged to be forcing the issue to oust the present mayor. Along with these motives, it is charged that they have been unable to restrain themselves from seizing the opportunity presented by the reassessment to make money out of the situation.

The interest rate on tax-anticipation warrants has been increased from 5 per cent to 6 per cent, even though such paper is tax exempt and payable out of the first taxes paid following the reassessment.

During the past year, tax-spending bodies are said to have been compelled to borrow large lump sums in excess of their immediate needs, rather than borrow smaller sums as needed. In this way, large portions of the lump sum are retained in the bank for a considerable period, drawing interest for the profit of the depository bank.

By dictating the expenditure of money loaned, the banks can keep down the cost of local government, and, consequently, make a saving for themselves as large taxpayers. School costs have been kept down markedly below the costs in other large cities, by requiring that Chicago teachers carry a much greater pupil load, while teaching on a salary schedule below that of a dozen other large cities.

Finally, if their assessments can be reduced, the banks and other large property owners can save millions of dollars in taxes.

Although only tentative figures are available, it appears likely that bank stock and railroad stock heretofore assessed at 60 per cent of their face value, will be reduced to 37 per cent. Likewise, the physical properties of many of the largest concerns will receive the benefit of tremendous reductions. The section of the city which includes the loop has had a reduction of 30 per cent in assessed valuation over the 1927 assessment figures. Other sections of the city have had smaller reductions, but

some sections of the city have been increased as much as 100 per cent over their 1927 figures.

In working out a solution of the financial predicament, there are several groups involved, some of which are at loggerheads. Those principally involved are: The city administration, a so-called rescue committee representing big taxpayers and the banks, the county commissioners, and the public-school officials. Some progress has been made toward coöperation.

Unless a solution is arrived at, the condition of the unpaid teachers, policemen, and firemen is going to become desperate.

There are 17 more children in the Chicago public schools now, per 1000 of city population, than there were ten years ago. The increase has come in the secondary-school grades. The following table shows the changes of the past decade:

Chicago Public-School Membership per 1,000 of City Population				
Year	Kg. to 6	7 to 9	10 to 12	Total Kg. to 12
1919 .....	91	24	7	122
1929 .....	88	35	16	139

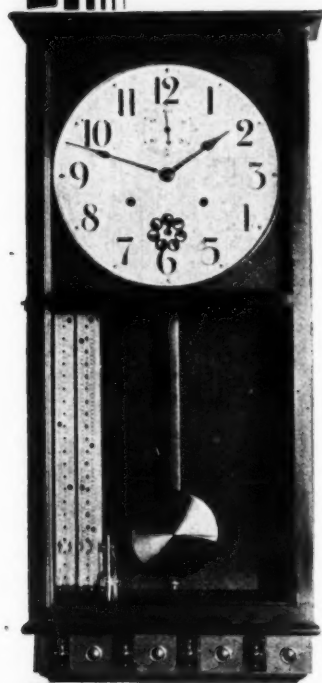
The growth of the upper grades is not due to increase in city population for that factor has been equated for, and the "source-grades" (Kg. to 6) have dwindled. The increase in secondary-school membership is a tribute to the prosperity of the people, to an enthusiastic belief in the value of education, and to the holding power of Chicago's secondary schools.

While it has been advertised to all parts of the civilized world that Chicago is "broke" and the schools may have to close, it is probably not generally known that the Chicago schools are managed more economically than are the schools of most other large cities, or the schools of other smaller Illinois cities.

According to figures released by the educational service department of the Department of Superintendence of the N.E.A., Chicago per-capita school costs are considerably below the average of the largest cities.



## announcing



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## a new low priced program clock

The Murda has a Seth Thomas movement and a sturdy program mechanism that makes connections for ringing the bells, yet requires no electricity for its own operation. It will operate all the bells in the building on one to four separate circuits. Its initial cost is low and its maintenance cost is negligible. This brings it within the reach of every school, large or small. Write at once for complete information, or better still, let us send you a Murda for a 30-day trial. You will be amazed at its economy and efficient operation.

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## Civic Opera Building Uses

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SOUND-PROOF DOORS  
and folding partitions

Schools, colleges, music rooms, gymnasiums, etc., need Hamlin sound proof doors to deaden outside noises and to insure the necessary privacy.

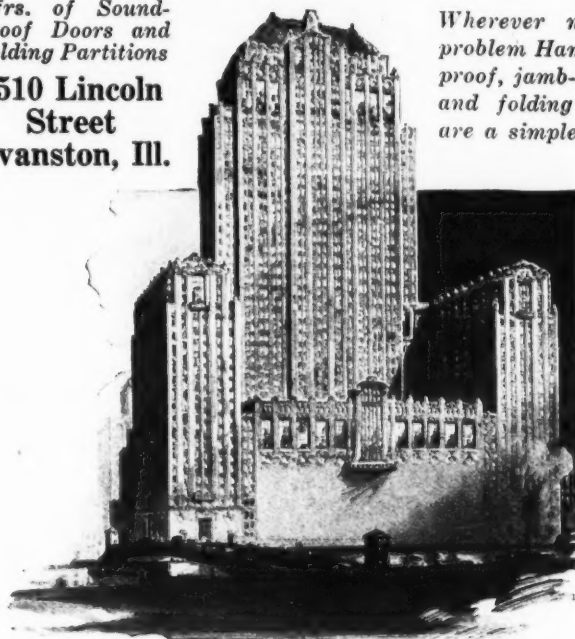
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Mfrs. of Sound-  
Proof Doors and  
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Wherever noise is a  
problem Hamlin Sound-  
proof, jamb-tight doors  
and folding partitions  
are a simple remedy.



The following table shows this:

	Per-Pupil (in A.D.A.) Cost	
	Instruction	All Current Expenses
New York.....	\$114	\$142
Average of the 10 largest cities .....	97	126
CHICAGO .....	83	120

(NOTE: There are twelve cities with 500,000 or more population, but only ten reported. However, the two not reporting this year, were exceptionally high last year. Even their last year's cost figures are much higher than the average of the above 1928-1929 data.)

Chicago's three largest suburbs are Evanston, Oak Park, and Cicero. These cities have the dual system, that is, a separate administration, a separate school board, and a separate tax rate, for high school and elementary school. Therefore, it is necessary to separate the data which are reported as follows:

	Per-Pupil Cost of Instruction, Operation, and Maintenance. (1928-1929)
<b>HIGH-SCHOOL COSTS—</b>	
Suburban High Schools.....	\$200.60
(Average of Evanston, Oak Park and Cicero)	
Chicago High Schools.....	158.98
(Average of 24)	
<b>ELEMENTARY-SCHOOL COSTS—</b>	
Suburban Elementary Schools..	\$103.82
(Average of Evanston, Oak Park, and Cicero)	
Chicago Elementary Schools...	93.64
(Average of 306 schools)	

The American Institute of Architects, Chicago Chapter, and the Western Society of Engineers were asked by the Chicago board of education "to investigate the present prevailing methods in the design, construction, and repair of school buildings in the City of Chicago, and to report their recommendations to the board of education for desirable changes in those methods."

At the present time, the school board employs an architect who supervises a force of about 150 men, but who in turn is under the direction of the business manager for the board of education. There was some talk of abandoning this policy and letting jobs out to private school architects, instead of

maintaining the bureau of architecture. The joint committee in upholding the present plan, suggests two radical changes:

"1. The position of school architect must involve full executive authority. It is of sufficient importance, and the work is so vital to the interest of the schools, that his position should be removed from under the business manager and placed directly in charge of the department with full authority and responsibility.

"2. We further unanimously believe that, if possible, the architect of schools should be removed from the civil service rules and appointed by the board of education, without written examination, from a list nominated by the American Institute of Architects, Chicago Chapter, and the Western Society of Engineers. Civil service examinations are not, in our opinion, adapted to the selection of the highest type of executive, where a combination of high qualifications of character and executive ability are the prime requirement. Such men are frequently too few to care to submit themselves to such conditions, knowing well such examinations are inadequate to bring out the necessary facts.

"We should further remark, that having had much experience with civil service examinations, we consider them a "two-edged tool." Properly conducted, they undoubtedly tend to weed out the unfit in cases where situations must be open to all comers, and where there is competition for subordinate positions. On the other hand, improperly conducted civil service examinations become a means to induct and intrench unfit persons in positions of responsibility, from which it is exceedingly difficult to remove them for the good of the service.

"In conclusion, we feel it a duty to say that no administrative board of unwieldy numbers, limited term of office, and varied opinions can ever hope to equal the business efficiency of a highly trained energetic and conscientious executive, who is given a comparatively free hand to work with promptness and trained judgment. The first duty of the Chicago board of education, if it wishes to remedy the chaotic conditions in this city, is, in our opinion, to find a means to retain highly experienced and

conscientious executives, provide them with adequate compensation, proper powers, and full authority and responsibility, and then advise with them rather than direct them, in the battle for the highest possible efficiency in public expenditure. If the board is not willing to do this, it cannot hope to perform the highest creditable public service."

It will be difficult to put over either one of the recommendations, namely that the architect be placed outside the pale of civil service, and that he be independent of the business manager.

### NEWS OF SCHOOL OFFICIALS

—MR. G. D. REEVES, secretary of the school board at Everett, Wash., has been reelected for another term.

—The school board of Salt Lake City, Utah, has completed its membership, with the election of MR. C. H. FISCHER to succeed G. H. RAYBOULD, and MR. G. R. CUSHING to take the place of C. F. BARRETT.

—DR. HENRY H. MAXSON, former superintendent of schools at Plainfield, N. J., recently celebrated the fiftieth anniversary of his marriage at his home in that city. Dr. and Mrs. Maxson were the recipients of many beautiful flowers, as well as telegrams and letters from their friends. Dr. Maxson was for 34 years superintendent of schools in Plainfield, until his retirement from school work in 1926. The local board of education honored him by naming the Maxson School for him.

—SUPT. B. V. KEISTER, of Neligh, Nebr., has been reelected for a new term of three years.

—SUPT. R. E. COOK, of Everett, Wash., has been reelected for a new three-year term, beginning with July 1. Mr. Cook is completing the second year of his first term in the Everett schools.

—MR. M. H. CARR has been elected superintendent of schools at Desdemona, Tex., to succeed R. M. Cantrell. MR. EARL FULBRIGHT has been elected principal of the high school, to succeed Mr. Carr.

—The school board of Sisterville, Va., has reorganized for the year 1929-30, with the election of MR. J. D. MAY as president. MRS. C. D. EASTMAN was reelected a member, and MR. J. D. MAY was elected to succeed J. H. Thornton.



For Students



## The Popular FS Microscope

The most popular and extensively used microscope by high school and college students for biological work is the FS Model. Special equipment gives it a range of magnifications adequate to meet the requirements of work in the scholastic laboratory. Easy to manipulate and of sturdy construction. It is an excellent instrument for the student unused to handling a microscope.

There is a series of FS Models, some are entirely adequate for elementary work, others are adapted for more critical observations.

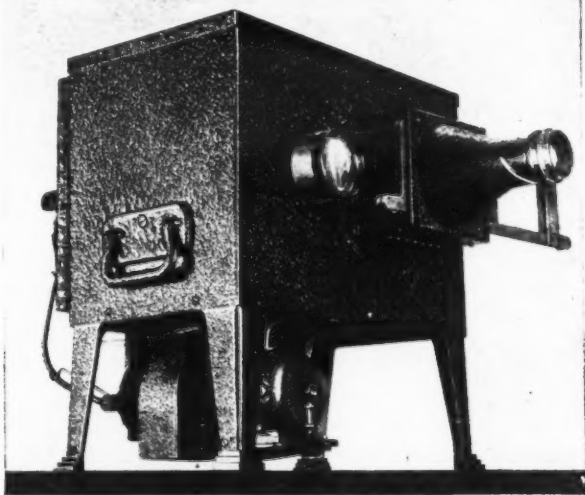
Write for complete information on these models.

**Bausch & Lomb Optical Co.**

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## TRANS-LUX "LITTLE WONDER"

*1-low priced 2-easily carried  
3-mechanically cooled*

THE "LITTLE WONDER" is built along the lines of our Model A, Air-Cooled Opaque Projector,—automatically cooled; has one 500 Watt, 110 Volt Mazda Lamp with pre-focal base; an extra reflecting mirror; a little handle under the machine, for changing from opaque to stereopticon projection; and weighs only 28 lbs.

It makes available a portable, air-cooled projector, combining both opaque and stereopticon projection, at a cost within the reach of all.

Write for further particulars.

**TRANS-LUX DAYLIGHT PICTURE SCREEN CORPORATION**  
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# Victor makes radio EDUCATIONALLY PRACTICAL

*Capitalize on all your previous work  
in musical appreciation!*

THE new Victor Radio-Electrola enables the music supervisor to make full use of the new musical medium of radio, efficiently—by a simple, natural extension of present methods. Only with this remarkable all-electric instrument and the great list of Victor educational records is this development possible!

With the Victor Radio-Electrola no radical new technic is needed: the concert over the air is *Prepared* for with Victor Records in advance—it is *Participated* in, just as if the artists had come to your school auditorium—and then, again with the records, it is reviewed, made *Permanent*. Every teacher knows that these three steps are essential.

Again Victor, with its unique background of intensive, progressive work in the field of school music, is far in advance.

Much worth while is already on the air, and many new programs are being planned. Victor Educational Records present the music you want, authoritatively. Put a

Victor Radio-Electrola  
in your class room  
now.

Victor Radio-Electrola RE-45  
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The Educational Department  
Victor Division  
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## Book News and Reviews

### A PRINCIPAL'S ESTIMATE OF THE SCHOOL LIBRARY

"My plea today is for the fact that the school library in its best sense is an essential part of any complete educational system," says Melvil Dewey, a library expert. Mr. Bardwell, another authority, has said: "It may confidently be asserted that the most patent single agency in the modern cosmopolitan high school is the library."

In employing these quotations as a text of a public address on the subject, R. M. Bechtold, principal of the Longfellow Junior High School of Flint, Mich., contends that the school library "has not only come to stay, but has developed into one of the greatest unifying agencies of the school." He continues:

"The first essential of a school library is that it shall be easily accessible. The best location in a fair-size school is on the second floor near the center of the building. This, ordinarily, is a good location, both with reference to use during the day and before and after school. It should be near the study hall or study rooms, near the classrooms where subjects are taught which use library work most, and away from the noise apt to be present near the entrances to the building. Of course, if the library is also used as a public library and is open to the community during the evening, it should be located on the first floor.

"The room used should be attractive, well lighted, and have an atmosphere of cheer and homelikeness. The pupil should go to the library because he wants to and not because he is forced to do so. There should be seating space (at tables or desks) for 10 per cent of the pupils enrolled. If the library is used to accommodate regular study classes, the capacity should be increased to 20 per cent of the student body. It is best to have the light come from one side, preferably north or east. In addition to the main library room there should be two others adjacent thereto; a librarian's office and workroom, and a storeroom. If the librarian is required to do all her planning and constructive work — as well as making out reports — in the main library room, she is subject to much interruption; and if repairwork, cataloging, etc., are done there, the students are apt to have their work interrupted. The storeroom is necessary for the storing of textbooks not in use, back numbers of periodicals, and books collected ready to be sent to be rebound."

The selection of a librarian is of paramount importance. Logasa says, "In the last analysis, the library is rather an accurate reflection of the capacity and personality of the librarian in charge." The librarian should possess those personal qualities which are desirable in teachers, such as loyalty, tact, a sense of humor, initiative, enthusiasm, sincerity, patience, kindness, ability to discipline, and a spirit of fairness. But in addition to these, she should be, to a greater extent than is required of teachers, systematic, accurate, and orderly. She should be possessed of a sense of proportion, and have a broad catholic taste. Not too much time should be spent on the more technical aspect of her work.

The training of the librarian should consist of a college education plus a year of library instruction. It is desirable that she should have training as a teacher and some teaching experience as well as a term of public-library service.

The cooperation of principal, faculty, and student body are necessary for the proper functioning of the school library. It might be a good plan for the librarian to use one faculty

meeting early in the year to explain the use of the library and the way it can be of help to teachers. The principal will, of course, keep in touch with the work of the library by occasional conferences with the librarian, but it is very wise to supplement this by having the librarian make a written report to the principal each month.

### NEW BOOKS

#### Safeguarding School Funds

By Henry Harold Linn. Cloth, 188 pages. Price, \$1.75. Bureau of Publications, Teachers College, Columbia University, New York, N. Y.

This book deals in a timely way with a timely subject. Public education in this country has become a billion-dollar business, and the adjustments between the sources of revenue and the budget requirements are not always happily found. In fact, the embarrassments which confront school administrators here and there, demonstrate the need for greater familiarity with the subject of school finance, and the pitfalls that threaten the school authorities.

In recognition of this fact, the author digs into the cause of school-fund losses. He begins by showing that money to which a school system is entitled, do not always materialize. He mentions bank failures, depreciation of securities held by school officials, lack of proper accounting procedures, improper bonding of those responsible for the care and custody of funds, and so on.

Considerable attention is given to the safeguarding of funds in depositories. The question of bank deposits, surety bonds, and the like, is discussed. In summarizing his observations the author says:

"One of the greatest potential sources of danger to school funds is loss in the event of bank failure. During the seven-year period, 1921-1927, a total of 4,513 banking institutions in the United States suspended operations, at the rate of approximately two banks a day for every business day during that period. At the time of suspension, these 4,513 banks carried deposits amounting to \$1,350,603,000. It is estimated that the depositors of these banks sustained an average total loss of not less than \$66,000,000 annually during this seven-year period."

He closes with the following caution: "If the school funds are to be safeguarded more effectively,

### READING FOR FUN

Reading for fun does not necessarily mean reading something funny. It is merely a type of reading which one does when all restrictions are removed and the child reads purely and simply for the recreation and the enjoyment which it affords him.

For children, beyond the primary grades, to do anything for fun in the schoolroom has traditionally been considered an unwholesome sort of thing by both parents and teachers. If the school, however, is to be adjusted to fit the child, this prejudice against fun for fun's sake must of necessity be broken down. Let us close our mind's eye for a few minutes and observe these in-between ages. When these children become tired of active play and have a few minutes of time and a feeling of absolute freedom, what do they do? In ninety-nine cases out of a hundred they seek a book, a magazine, or even a newspaper, and curl up in a chair or drop down on the floor to read. This reading has about it an air of quiet contentment which cannot help but impress one with the fact that the child has drawn himself apart from all others to enjoy a happy hour in his "land of storybooks." This kind of recreation, for lack of a better term, we call "reading for fun."

—Hector Hackworth, State Teachers' College, Tahlequah, Oklahoma.

the state must exercise greater control and more supervision over the local school funds than is true in most states at present. Education is a function of the state. The local school funds, in a strict sense, are state funds, and they are administered by local authorities because of state authorization and sanction. The state not only has the right to control and supervise the administration of local school funds, but it has the responsibility for doing so. Therefore, among other things, it should prescribe uniform systems of accounting, budgeting, and reporting to be followed by the local school system; it should determine a minimum program of financial publicity for the local schools; and it should make provisions for at least an annual audit of local school accounts."

#### Solid Geometry

By William W. Strader and Lawrence D. Rhoads. Cloth, 176 pages. Price, \$1.20. The John C. Winston Company, Philadelphia, Pa.

The authors have succeeded in providing quite human and distinctly informal demonstrations for the basic theorems in this formally complete book. In addition, many auxiliary propositions, practical problems, review questions, round out the minimum course for rapid, bright classes.

#### Beginning Chemistry

By Gustav L. Fletcher, Herbert O. Smith, and Benjamin Harrow. Cloth, 476 pages. The American Book Company, New York City.

A personal touch and a new method of handling old, scientific facts are refreshing to both teacher and pupil. *Beginning Chemistry* does just this. It begins where ninth-grade general science leaves off and applies the principles of general science to chemistry. Furthermore, it talks straight from the shoulder in treating the electron as a useful tool for understanding the various types of chemical change. It also explains the uses of chemistry in practical everyday life.

#### Betty June and Her Friends

By Lena B. Ellingwood. Cloth, 96 pages. Published by American Book Company, New York City.

This is a delightful children's book. A series of stories are told in simple text and in beautiful colored pictures. Betty's friends belong to the animal kingdom. She has many experiences, all with an appeal to child fancy and child interest.

#### Tatters

By Margaret J. McElroy and Jessica O. Younge. Cloth, 32 pages. Published by American Book Co., New York City.

This book is so small that one wonders why it should be published. But *Tatters*, the dog, is such an interesting and lovable companion that the book has a legitimate claim upon child interest.

#### Instructional Tests in Chemistry

By Earl R. Glenn and Louis E. Welton. Teachers' manual, score card, and instructions for teachers in high school and college. Price, teachers' manual, 16 cents; tests, 36 cents. World Book Co., Yonkers, N. Y.

These tests have been developed to cover the essentials of any first course in high school or college, and may be used with any popular text. The 36 standardized tests, cover an equal number of units of work in chemistry, and are in accord with modern courses of study. They give adequate attention to such topics as symbols, formulas, equations, types of reactions, and families of elements.

The teachers' manual contains complete directions for using the tests. Very little writing is required, so that the student can give a maximum amount of time and effort to the work, and the teacher is saved time in reading answers and making judgment of their correctness.

The score card contains keys and directions for scoring. The key may be used for comparisons of scores with the norms in the manual, or with local norms.

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By Earl R. Glenn and Ellsworth S. Obourn. Teachers' manual, key, and instructional tests. Tests, list price, 32 cents; key, 12 cents; teachers' manual, 16 cents. World Book Company, Yonkers, N. Y.

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(Continued on Page 155)



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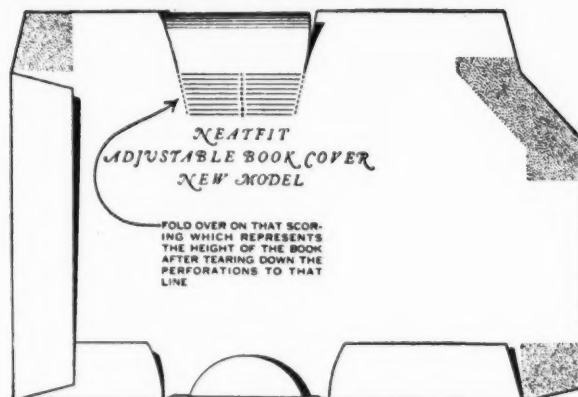
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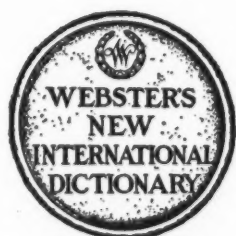
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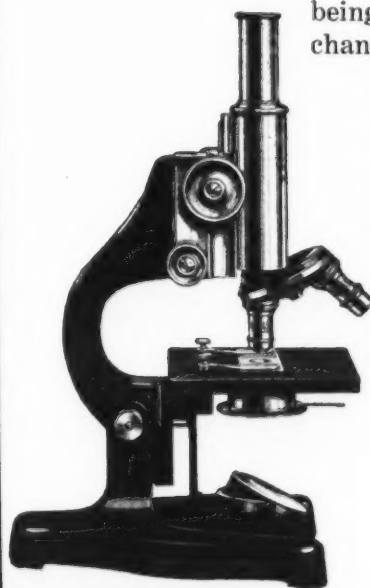
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(Continued from Page 152)

as well as the shortcomings, of present courses, present textbooks, and present objectives. That it tends strongly to the purely scientific aspects of physics is undoubtedly a point of strength in the mind of most teachers. The reviewer personally would greatly prefer more emphasis on the application of principles to present-day life.

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**Physiology and Health**

By C. C. Turner. Cloth, 288 pages. D. C. Heath & Company, Boston, Mass.

This book represents a straightforward return to the older type of health text in which physiological facts are strongly emphasized. The author holds that junior-high-school students need this type of work as the basis of understanding and evaluating principles of health and practices of healthful living. Like most physiologists, he attempts to explain much of the mind's action on purely physiological grounds — always an unsatisfactory and one-sided proceeding. The recommendations for health are the most practical and teachable parts of the book.

**Changing Civilization in the Modern World**

By Harold Rugg. Cloth, 633 pages. Price, \$1.96. Published by Ginn & Company, Boston, Mass.

What is this book? The title would suggest that it is a philosophic study in social evolution. It is in reality a textbook in world geography with historical backgrounds. It tells, for instance, how England became industrial Great Britain, why Germany became a powerful industrial nation and the center of European trade, how the home of ancient civilization became modern Latin America, and so on.

In other words, the author provides a course in which economic, geographic, and historical material is presented in close relationship. The student is enabled to understand modern civilization by becoming familiarized with the modes of life as pursued in the several countries of the world. The

problems of living in the various zones, of utilizing the gifts of nature to the uses of man, the influences of forces that made for progress, the task of a former and that of a modern day — all are told in popular and instructive phraseology.

The author not only tells of the changes, but he also notes the causes for the changes. How the spinning and weaving of the housewife grew into the great textile mills, how the small fishing smack grew into a fleet of ocean liners, how commerce and trade was reared from meager beginnings to enormous magnitude, are described with a remarkable completeness and interest.

A book of this type lifts geography out of the dull routine of learning place names, population figures, and all the numerous political and physical facts that become so confusing to children and are so soon forgotten. But a book like the present also increases the difficulty of teaching geography, because it requires a nice sense of the significance of facts and a constant reference to all the spiritual, civic, religious, and racial influences which together with geographic and climatic influences affect human life. If the teaching of a book like the present leaves children with the idea that geographic conditions alone determine civilization, then untrue and unwarranted ideas are set up in the minds of children, which must be later unlearned.

The book is liberally and attractively illustrated. There are maps and graphs to illuminate the text. The several chapters are grouped under units which are followed with lists of publications from which additional information may be obtained. An appendix dealing with statistical material is provided.

**Second Course in Algebra**

By Fred Engelhardt and Leonard D. Haertter. Cloth, 423 pages. Price, \$1.36. John C. Winston Company, Philadelphia, Pa.

This scholarly book opens with an intensive review of first principles and carries the student along well-accepted paths to the binomial theorem. Any bright class will find the book a challenge; every live teacher will consider it a delight in its scientifically mathematical approach. The human and applied aspects of the subject are fully supplied

in problems taken from engineering, aeronautics, automechanics, etc. The approach to geometry and trigonometry is cared for in three or four final chapters.

**Corrective Arithmetic**

By Worth J. Osburn. Cloth, 274 pages. Price, \$1.80. Houghton Mifflin Company, Boston, Mass.

A new arithmetic may not always be new in the presentation of an old subject. The present volume does not lay claim to radical changes in approach or method. Its merit is found in the fact that it seeks to do better the things that arithmetic teachers are now trying to do.

The author discusses in a frank way the problems which attend the teaching of the subject. He aims at direct as well as correct methods. Error studies are embodied in his chapters on problem-solving, common fractions, decimal fractions, arithmetic as a preparation for higher mathematics, and so on. At the same time they emphasize the elements and skills that are most worth teaching.

A good part of the book is given over to practical teaching materials. A summary of cues in problems and types of common fractions are here presented.

**Getting Well and Staying Well**

By John Potts, M.D. Cloth, 221 pages. Price, \$2. The C. V. Mosby Company, St. Louis, Mo.

Health books are growing in popularity. The present volume is a second edition of a popular work on the health of persons predisposed to, or afflicted with, tuberculosis. The author is most instructive when he discusses the expediency and value of the diagnosis. He gives considerable attention to tuberculosis as a preventable and curable disease, diagnosing the earlier symptoms and the treatment of the disease.

The author also describes the operations of a sanatorium, the treatment of patients, their reaction and coöperation to treatments, etc. In fact he deals intelligently with the practical phases of the relations of doctor and patient. It is intended to serve the latter rather than the former. He enters into some practical talks about the advice-giving friends and the quackery that is so frequently encountered. The book is most helpful in



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#### The Training of the Will

By Johann Lindworsky, S.J. Translated by A. Steiner and Edward A. Fitzpatrick. Cloth, 226 pages. Octavo, price, \$1.80. Bruce, Milwaukee.

This translation from the German introduces a well-arranged theory of training the will. The author holds that all activity of the will is based on an appreciation of values and that in order to train the will, it is necessary to implant in the mind of the child what he designates as a complex of values, aims, and motives which can be called upon in case of necessity. The will does not gain strength by repeated activity, but rather by growing appreciation of values and motives. He holds that all artificial schemes for training the will are based on so-called fallacies, and that they do not in fact produce strong wills or more intense willing. For the upbuilding of more power in moral problems, he recommends strongly a complete understanding of religious and moral values as the basis of a unified life ideal. The book closes with a number of practical applications which teachers can make in a classroom.

The book has had a wide sale in Germany and should be well received in its English translation.

#### Stories of American Pioneers

By Sarah Dow Heard and M. W. King. Cloth, 234 pages. Published by The John C. Winston Company, Philadelphia, Pa.

American pioneer stories possess an unending charm. A new book on the subject depends upon the choice of material and the manner of presentation. The authors have succeeded in producing a delightful book in which they tell of the Indians, the Pilgrims, and the conquest of the West. The text is suited for children's reading. A series of pen and ink drawings, also colored illustrations, are provided.

#### Modern School Arithmetic

Book two. By John R. Clark, Arthur S. Otis, and Caroline Hatton. Cloth, 384 pages. World Book Co., Yonkers, N. Y.

This textbook reflects the best thought of the newer arithmetic. It is written in the language of children, for children, and about children. The book takes into account such factors as child interests, adequate guidance in problem solving, graded steps in presentation, abundance of practice material, diagnosis and remedial practice, measurement of progress.

Book two, which is intended for use in the fifth and sixth grades, takes up the fundamentals of fractions, measurement, decimals, scale drawings, per cents, business practice, measurements, and preparatory work for the seventh grade. The book contains a valuable collection of tested material for practice and drill.

#### Tom and Betty Primer Work Book

By Emma Miller Bolenius. Paper, 87 pages. Published by Houghton Mifflin Company, Boston, Mass.

This primer work book is designed to be used in connection with Tom and Betty Primer. The purpose is to test the pupils' grasp of the meaning of phrases employed, and the story presented. The illustrations are in outline, permitting their embellishment through the aid of colored crayons. The lessons are thus brought into more intimate relation to the child. The author has been assisted by two professors of Johns Hopkins University in providing the necessary educational touch. The result is a most useful book. It is printed in large type and is adorned with a fine series of fine colored pictures.

#### Animal Friends

By Emma Miller Bolenius. Cloth, 122 pages. Price, 60 cents. Published by Houghton Mifflin Company, Boston, Mass.

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#### American Handwriting Scale

By Paul V. West. Issued by the department of research of the A. N. Palmer Co., New York, N. Y.

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#### Manual of Engineering Drawing for Students and Draftsmen

By Thomas E. French. Cloth, 466 pages. Price, \$3. McGraw-Hill Book Company, New York, N. Y.

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#### Scott's Ivanhoe

Edited by A. M. Hitchcock and H. Y. Moffett. 12 mo., illustrated. Price, 60 cents. The Macmillan Company, New York.

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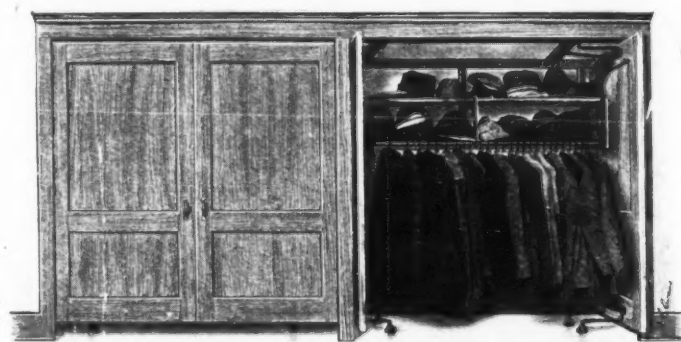


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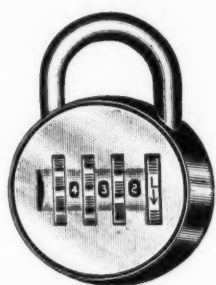
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### TEACHERS AND ADMINISTRATION

—Minneapolis, Minn. The school board has approved a recommendation of the superintendent of schools, covering appointments and dismissals of teachers in the day and evening schools.

—Beloit, Wis. The school board has revised the rules governing the compensation of teachers during absence from their duties. The rules read as follows:

"When a teacher is absent because of personal illness, or the death of a member of the immediate family, no deduction shall be made in the salary, provided the absence does not exceed five days in one school year.

"When such absence exceeds five days in a year, or when the absence is caused by the marriage or the critical illness of a member of the family, the matter of deduction is subject to the discretion of the board. Teachers who are absent are required to record on their monthly reports, the number of half days absent during the month, and to state in writing the cause of such absence."

An official report shows that 2,921 young men and women were examined for teachers' licenses by the board of examiners of the New York City school system. Of this number 1,309 were eliminated and 1,612 passed. The examinations have been more rigid in order to limit the supply of teachers.

—Salem, Mass. The school board has given increases of \$200 in salary to the women heads of departments in the high school. A suggestion that women assistants in the high school be given increases of \$100 was defeated by a vote of five to two.

—A demand that the legislature of Michigan participate financially in the support of the teachers' retirement fund has been made by a representative group of school organizations and officials of the retirement fund board. The legislative committee has accepted the services of Mr. Herman L. Ekern, retirement fund expert, in the adjustment of the financial situation.

—Pontiac, Mich. The school board voted not to employ married women teachers after March 1. The rule does not affect teachers already on the

teaching staff, but their contracts will not be renewed.

—Davenport, Ia. A proposal for the establishment of a pension fund, to be maintained in part by a direct tax, was submitted to a vote of the people, at a school election held on March 10. Revenue for the pension fund will be derived from two sources. The city contributes a tax of not to exceed two tenths of a mill, and the teachers pay one per cent of their salaries per annum. The pension fund, if approved, will be administered under the direction of the board of education.

—The state teachers' association of Texas has begun the erection of a new headquarters building to house the various departments carrying on the work of the association. The building has been planned especially to meet the needs of the association and presents a very attractive appearance.

—On January 31, 42 veterans in the service of the Chicago schools retired from schoolwork, after the completion of twenty years or more of consecutive service. All of them are 70 years of age, and of the 42, eight had taught more than fifty years in the schools. The group included eighteen principals of junior and senior and elementary schools, the largest number of principals ever retired at one time in the history of the school system.

### PAWTUCKET ADOPTS RULES FOR TEACHERS' SICK LEAVE

Upon the recommendation of Supt. William A. Newell, the school board of Pawtucket, R. I., has adopted new rules governing pay for illness of teachers, as well as increases in salary.

Under the rules, teachers will be allowed 10 days with pay, for personal illness. The unused days will be made accumulative in periods of 5 years. The accumulative allowance, in addition to the regular 10 days' allowance for illness, will be available only in cases of serious or extended illness.

The plan provides for 9 periods, ranging from 1 to 5 years in length. These are as follows:

1. The first period (1 to 5 years) will be 10 days a year.
2. The second period (6 to 10 years) will be 10 days a year, plus 5 per cent of the unused days accumulated during the first period.

3. The third period (11 to 15 years) will be 10 days a year, plus 10 per cent of the unused days accumulated during the third period.

4. The fourth period (16 to 20 years) will be 10 days a year, plus 12 per cent of the unused days accumulated during the year.

5. The fifth period (21 to 25 years) will be 10 days a year, plus 15 per cent of the unused days accumulated during the fifth period.

6. The sixth period (26 to 30 years) will be 10 days a year, plus 16 per cent of the unused days accumulated during the fifth period.

7. The seventh period (31 to 35 years) will be 10 days a year, plus 17 per cent of the unused days accumulated during the sixth period.

8. The eighth period (36 to 40 years) will be 10 days a year, plus 18 per cent of the unused days during the seventh period.

9. The ninth period and subsequent periods (41 years and over) accumulation will be 18 per cent of the unused days during the preceding period, until the maximum for the eighth period is reached.

### SCHOOL ATTENDANCE IN ILLINOIS

The state education department of Illinois has issued a report, showing a total day's attendance in high schools of 48,759,251. The average daily attendance was 260,371, while the per cent of attendance was 90. The average number of days the schools were in session was 187, while the average number of days attended by each pupil was 170. The total number of teachers was 10,971, which was divided between 4,592 men and 6,379 women.

There were a total of 286,635 students in attendance in high schools, divided between 146,112 boys and 140,523 girls. There were 277,733 enrolled in four-year high-school courses, 7,264 in three-year courses, and 1,638 in two-year high schools.

During the year there was expended a total of \$35,084,268 for current expenses, and \$8,116,821 for capital outlay, making a grand total of \$43,201,089. The value of the school property was \$133,284,680, of which \$119,644,380 was for sites and buildings, and \$13,640,300 for equipment.





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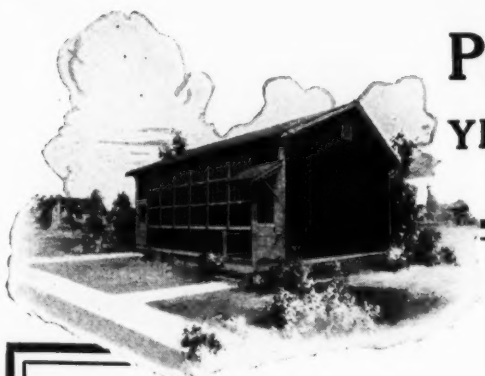
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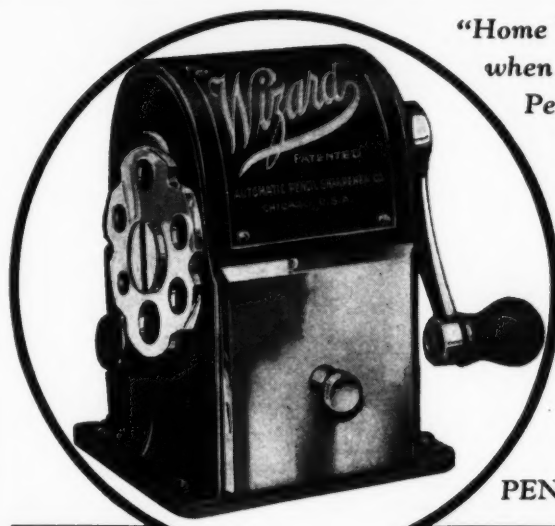
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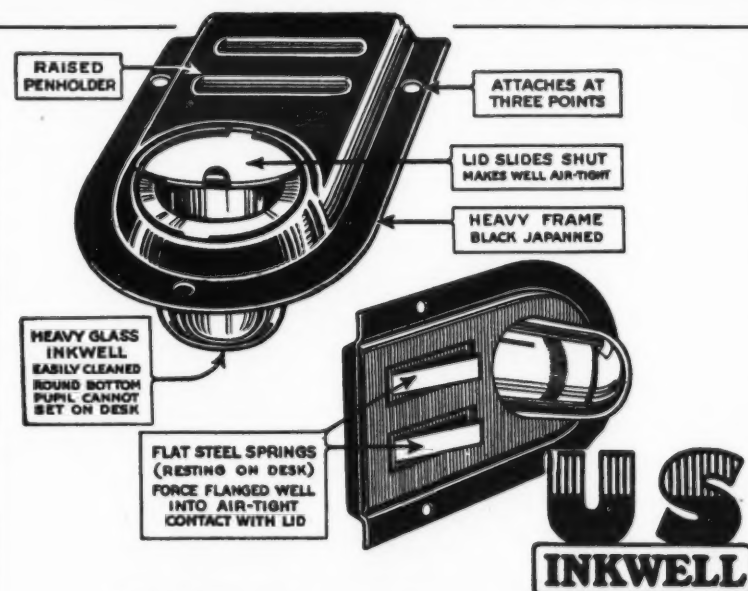
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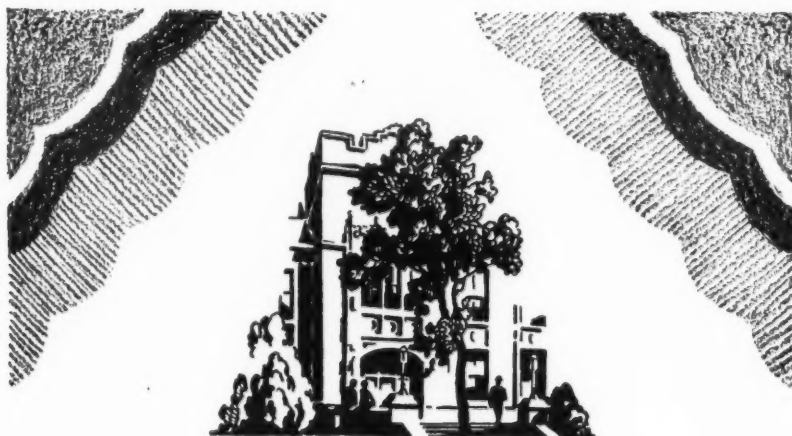
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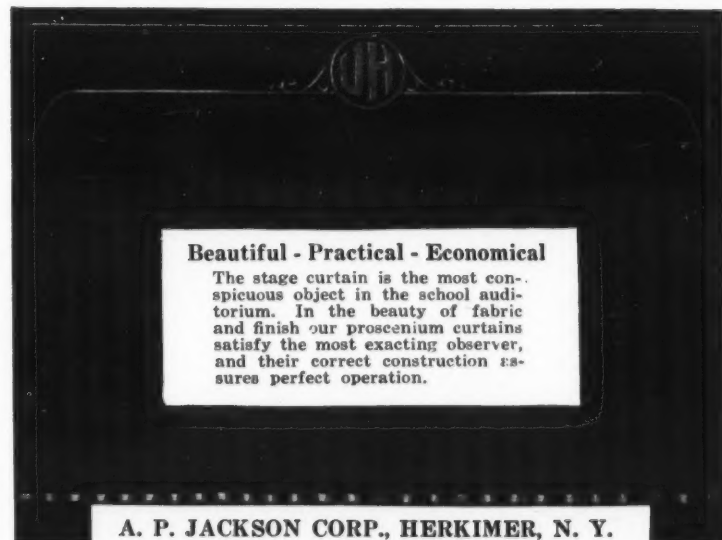
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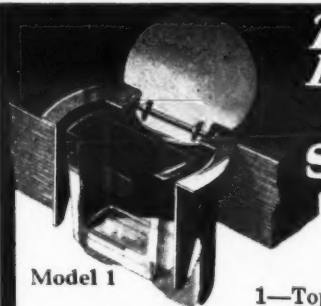
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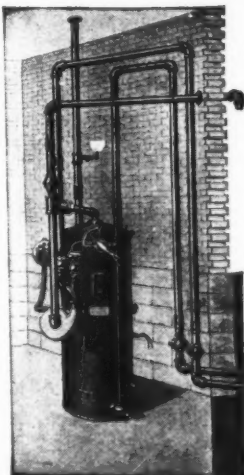
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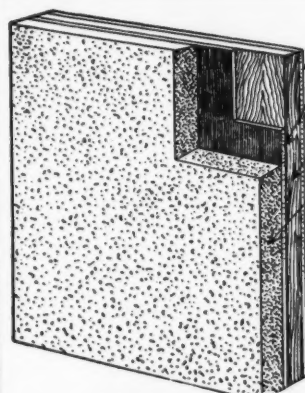
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Universal Equipment Co.  
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Gregg Publishing Company  
Houghton, Mifflin Co.  
Iroquois Publishing Company  
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Common Brick Mfrs. Ass'n, The  
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Wayne Works, The

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Van Range Co., John

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Maple City Stamping Company  
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Stakmore Company  
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Standard Mfg. Company  
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Binney & Smith Co.

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Beckley-Cardy Company  
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National Crayon Co.  
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Weber Costello Company

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Pick-Barth Co., Inc., Albert  
Sheldon & Co., E. H.  
Standard Gas Equipment Corp.  
Van Range Co., John  
Welch Manufacturing Company, W. M.

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Sheldon & Co., E. H.  
Vitek Manufacturing Co., Inc.

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Rundle-Spence Mfg. Company  
Taylor Company, Halsey W.

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Midland Chemical Laboratories

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Congoleum-Nairn, Inc.  
Duraflex Co., The  
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Congoleum-Nairn, Inc.  
Duraflex Co., The

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Clow & Sons, James B.

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Royal Metal Mfg. Co.  
Stakmore Company  
Standard Mfg. Company  
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Vitek Manufacturing Co.

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Wilson Corp., Jas. G.

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Cleveland Range Company, The  
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Imperial Desk Company  
Kewanee Mfg. Company  
Kimball Company, W. W.  
Kundt Company, The Theo.  
Maple City Stamping Company  
National School Equipment Co.  
Peabody Seating Co.  
Rowles Co., E. W. A.  
Royal Metal Mfg. Co.  
Stakmore Company  
Standard School Equipment Co.  
Steel Furniture Company  
Wark-Beacon Steel Furniture Co.  
Welch Manufacturing Company, W. M.

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Dunham Company, C. A.  
Heggie Simplex Boiler Company  
Nelson Corp., The Herman  
Peerless Unit Ventilation Co., Inc.  
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Keller Ink Co., Robert  
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Squires Inkwell Company  
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U. S. Inkwell Company

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Eagle Soap Corporation  
Midland Chemical Laboratories  
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Welch Manufacturing Company, W. M.

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Peterson & Co., Leonard  
Sheldon & Company, E. H.  
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Medart Mfg. Co., Fred  
Narragansett Machine Company  
North Western Steel Products Co.  
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(Continued from Page 166)

### PLAYGROUND APPARATUS

Chicago Gymnasium Equipment Co.  
Hill-Standard Company  
Medart Mfg. Co., Fred  
Mitchell Manufacturing Co.  
Naragansett Machine Company  
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Westinghouse Electric & Mfg. Co.

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### REINFORCED STEEL

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Trans-Lux Daylight Picture  
Screen Corp.

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Jackson Corp., A. P.

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Tiffin Scenic Studios

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Mills Company, The  
Norton Company

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Kimball Company, W. W.

Mutschler Bros. Company  
Remington-Rand Business Service, Inc.

Welch Manufacturing Company, W. M.

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Natl. Association of Teacher Agencies  
Teacher Agencies Directory

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Graybar Electric Co., Inc.  
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Mills Company, The  
Sanymetal Products Company

Structural Slate Company  
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Underwood Typewriter Company

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Sturtevant Co., B. F.

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Nash Engineering Company

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Clow & Sons, James B.

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Sloan Valve Company

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Wallace & Co., J. D.

Welch Manufacturing Company, W. M.

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K-M Supply Company

Progressive School Equipment Mfg.

Co., The  
Wilson Corp., Jas. G.

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North Western Steel Products Company

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Vogel Co., Joseph A.

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Bradley Company, Milton

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Truscon Steel Company

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Bradley Company, Milton

### WEATHERSTRIPS

Athey Company, The

### WINDOWS—ADJUSTABLE

Austral Window Company

Detroit Steel Products Company

North Western Steel Products Co.

Truscon Steel Company

Universal Window Company

Williams Pivot Sash Company

### WINDOW FIXTURES

Austral Window Company

Columbia Mills, Inc.

Peerless Unit Ventilation Co., Inc.

Williams Pivot Sash Company

### WINDOW GUARDS

American Fence Construction Co.

Badger Wire & Iron Works

Logan Co.

North Western Steel Products Company

Stewart Iron Works Co., The

### WINDOWS—REVERSIBLE

Austral Window Company

Detroit Steel Products Company

Williams Pivot Sash Company

### WINDOW SHADE CLOTH

Columbia Mills, Inc.

Du Pont de Nemours & Co., E. I.

Hartshorn Company, Stewart

### WINDOW SHADE ROLLERS

Columbia Mills, Inc.

Hartshorn Company, Stewart

### WINDOW SHADES

Athey Company, The

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Draper Shade Co., Luther O.

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Hartshorn Company, Stewart

Maxwell & Co., Inc., S. A.

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Truscon Steel Company

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Cyclone Fence Co.

Logan Co.

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Woodworking Machinery

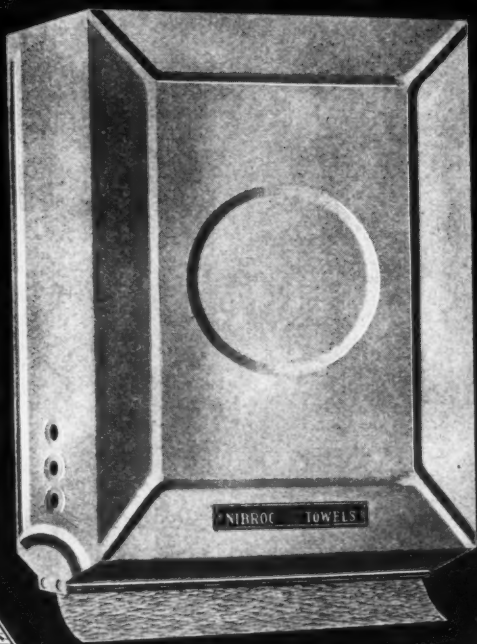
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Keep your  
*school health*  
standards high  
*with*

## NIBROC TOWELS

THEY encourage boys and girls to wash more often. NIBROCS are highly absorbent. One NIBROC dries the hands thoroughly, leaving them soft and clean. They contain no chemicals to injure the skin, and prevent the spreading of infectious diseases often found on the common towel. NIBROCS are lintless. They are served individually, fresh and clean from a dust-proof, key-locked, steel cabinet which is loaned to customers.

Write now for a generous sample of NIBROCS



FOUNDED 1852

Portland, Maine



## After the Meeting



### A Helpful Suggestion

"William," said the principal, who overheard two of the scholars quarreling on the playgrounds, "you shouldn't talk to a playmate like that."

"But gee, sir," William exclaimed, "you oughta heard what he just called me."

"That's all right," said the principal. "Had you thought of heaping coals of fire upon his head?"

"No, sir," was the reply. "But it's a peach of an idea."

### A Modern Maid

Teacher: "What did Juliet say when she met Romeo on the balcony?"

Pupil: "Couldn't you get seats in the orchestra?"

### According to Age?

History Teacher: "What is the Order of the Bath?"

Johnny: "Tommy comes first, then Willie, and then baby."

### Also

Teacher: "An anonymous person is one who does not wish to be known. Who's that laughing in the class?"

Voice: "An anonymous person, teacher."

### Needed One

Housewife: "No, I don't want no cookbook, nor no almanac, nor no book of no kind."

Book Agent: "Then how about a good cheap grammar?"

### Good Reason

A boy was crying when he got to Sunday school, and his teacher asked him what the trouble was. "Dad wouldn't let me go fishing this morning," he sobbed. "That was the right thing for your father to do; didn't he tell you why you couldn't go fishing today," responded the teacher. "Yes," said the kid between sobs, "he said there was only enough bait for him."

### What Daughter Thought

Mr. A. C. Shong, veteran principal of the West Division High School of Milwaukee, tells this story concerning himself:

"When my children were small their mother brought them occasionally to the school after four o'clock, while she went out to do some necessary shopping. My little girl, who was then 9 years of age, readily busied herself with a magazine, but my boy, who was 5, was restless and inclined to pick up chalk, and other things with which he should not play. I, therefore, suggested to my daughter that she keep him busy with games and with other things which she might improvise. There were always available wastepaper, shears, and pencils with which the children might play."

One afternoon I came into the office to find the children there. The little girl was lolling back in her chair, hands folded, eyes glued on the ceiling. The boy was busy writing with a great bundle of papers before him.

"Why don't you play with Jack?" I asked.

"But, Daddy, I am," said my little girl. "We are playing school. I am the principal, and Jack is your clerk."



### Naturally

Chemistry Teacher: "Supposing this gas was deadly poison, what steps would you take if it should escape?"

Brilliant Pupil: "Long ones."

MARY HAD A —  
Mary had a little dab  
Of rose upon her cheek,  
But every where that Mary went  
That dab made people shriek.

She took the dab to school one day,  
And sought her usual place;  
The teacher cried: "Forsooth, poor girl,  
Go home, and bring your face!"

—Orville Jones.



### NEW EASTMAN FILMS

Eastman Teaching Films, Inc., of Rochester, N. Y., has issued two new classroom films, entitled "The Mohawk Valley," and "The Golden Gate." The first is a study of the history and development of the Mohawk Valley, and the second is a study of the romantic history and background of the City of San Francisco and San Francisco Bay.

### THE DUDFIELD DUST TRAY AND ERASER CLEANER

School officials and teachers will be interested in a new descriptive circular, just issued by the Dudfield Manufacturing Company, of Liberty, Mo., illustrating and describing the Dudfield improved combination dust tray and eraser cleaner.

### NEW SCHOOL FILMS

The American Sound and Talking Picture Equipment Corporation, manufacturers of Tone-o-Graph, New York City, have recently announced a series of one-reel educational-film subjects for distribution in the schools. These educational pictures include 52 one-reel subjects, which will be distributed to the schools of the country for classroom use during the present year. The films have been tested and approved for visual-instruction purposes.

### NEW CIRCULAR ON TABLES AND CHAIRS

The American Seating Company, of Chicago, Ill., has issued a circular, describing and illustrating its new line of tables and chairs for kindergartens, primary grades, classrooms, libraries, and special rooms.

The circular illustrates a line of tables and chairs specially designed for school uses, which embodies distinctive superiorities not previously obtainable at school-equipment prices. All the furniture has a sanitary, washable, durable lacquer surface over American-walnut brown stain, which gives a beautiful finish to hardwood grain effects. This line is in a class of its own in design, construction, workmanship, attractiveness, and scientific adaptability to specific purposes.

Complete information may be obtained by writing to The American Seating Company at 14 East Jackson Blvd., Chicago, Ill.

### DEATH OF MR. LOUIS

Mr. Otto Theodore Louis, president of the Scientific Equipment Company, died at his home in New York City, on December 18.

### NEW CATALOG OF MILLER SCHOOL WARDROBES

The K-M Supply Company, of Kansas City, Mo., manufacturers of Miller school wardrobes, has just issued a new Catalog W-6, illustrating and describing standard types of classroom and corridor wardrobes, also special equipment for the interior of wardrobes.

The catalog contains plans, specifications, and useful information for selecting the proper wardrobe for a school building. Some especially valuable information is given relative to size of wardrobe, blackboard heights, and ventilation.

School officials and architects may obtain a copy of the Miller catalog by writing to the K-M Supply Company at 117 West Eighth St., Kansas City, Mo.

### ANNOUNCE BAUSCH & LOMB RESEARCH MICROSCOPE

The Bausch & Lomb Optical Company, of Rochester, N. Y., has issued an illustrated booklet, describing its new Research DDE Microscope, which is an entirely new instrument. The new microscope is the result of exhaustive research, and its design and construction have taken advantage of important principles for convenience, accuracy, and comfort. It has been designed to permit rapid change from binocular to monocular vision and back again, and to allow for the focusing of the condenser for higher power and for lower power.

Complete information may be obtained from the Bausch & Lomb Optical Company at Rochester, N. Y.

### RICHARDS-WILCOX COMPANY OBSERVES GOLDEN ANNIVERSARY

The Richards-Wilcox Company, of Aurora, Ill., is observing, during the year 1930, the fiftieth anniversary of the establishment of the firm. The firm was established in 1880 for the manufacture of barn-door hangers, and has since increased the scope of its products with the addition of auditorium and gymnasium door equipment, garage doors, fire doors, partition doors, school wardrobe-door hangers, and industrial doors. During its fifty years of service the R-W firm has occupied three different sites. In 1880 the Wilcox Company was established, with Mr. J. H. Pease as president. In 1910, the firm was reorganized with the merging of the Wilcox and Richards firms into the Richards-Wilcox Company, with Mr. W. H. Fitch as president.

The present firm has a large school field and enjoys a reputation for honesty and square dealing. Mr. Fitch continues as president and general manager of the concern.

### HERMAN PRICE GOES TO EAGLE PENCIL COMPANY

Mr. Herman Price, formerly manager of the pencil sales department of the Joseph Dixon Crucible Company, Jersey City, N. J., has recently become vice-president and general manager, and a member of the board of directors of the Eagle Pencil Company of New York City.

Mr. Price has a long service record in the pencil industry and is well known to the school-supply field. Beginning as a stenographer with the Dixon Crucible Company 29 years ago, by force of ability and initiative he was advanced to various positions of responsibility. He was appointed as manager of the pencil sales department, a position which he had held for the past 14 years with marked success.

### MR. H. B. VAN DORN SUCCEEDS MR. PRICE

Mr. H. B. Van Dorn, Jr., who has become manager of the pencil sales department of the Joseph Dixon Crucible Company, Jersey City, N. J., succeeds Mr. Herman Price. He comes to his new position with an extensive pencil experience and a wide knowledge of trade requirements, gained in actual work as a salesman over a period of 21 years with the Dixon Company. Mr. Van Dorn has served a long apprenticeship as a representative of the pencil sales department of the company, and as assistant manager in charge of pencil salesmen. He enjoys a wide acquaintance among the stationary trade and is a familiar figure at all the trade conventions in the United States and Canada.

### NEW NATIONAL EQUIPMENT CATALOG

The National School Equipment Company, of Port Washington, Wis., manufacturers of school equipment, have just issued a new loose-leaf catalog which is the result of many years of experience in building school-room equipment. The material which is based on an entirely new idea in catalog-making, stresses the functional design of school furniture. It treats particularly of the educational uses of the furniture, as well as the economic and hygienic features.

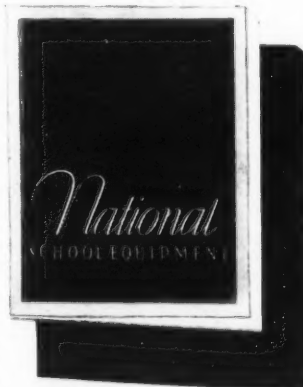
The catalog lists adjustable, posture, pedestal, lecture-room, commercial, and movable chair desks, as well as a line of schoolroom and office chairs, kindergarten furniture, assembly seating, tablet-arm chairs, and teachers' desks.

School officials who are interested in the National line may obtain complete information and prices by writing to the National Equipment Company at Port Washington, Wis.

### A NEW IDEA IN TEACHER PLACEMENT

Previous to the world war, mental testing was undertaken only by psychology professors and was an uncommon thing. Today, tests of various kinds are being used in the large business organizations, and one city has used mental tests for its police department.

At Omaha, Nebr., an I.Q. Teachers' Association has been formed. It is a teachers' placement agency, which has as its membership requirement a satisfactory I.Q. as determined by a standard mental test. The I.Q. Teachers' Association has been organized on the basis that the employer has the right to know the mental capacity of the teacher under consideration for a teaching position. The association is directed by Mr. A. M. Johnson, an experienced teachers' agency and placement manager.



The New "National School Equipment" Catalog





In 1770 citizens were required to own a leather water bucket and to respond to the fire alarm at any time

## A Service to Property Owners

Every day fire consumes over twelve hundred buildings—an appalling loss.

Mutual Fire Insurance companies are fighting against this loss and have been for nearly a century.

Conservation of property has long been the basic aim of mutual fire companies because they recognized that reduction of fire loss was the most effective means of reducing the cost of fire insurance.

The enormous saving that has resulted from mutual prevention effort has benefited mutual policyholders through reduction of rates, and annual returns of a substantial part of the premium.

The substitution of the ideal of con-

servation for the idea of profit on the part of mutual fire companies has been a considerable and measurable benefit to American property owners.

The mutual plan of insurance is old—older than any other form of insurance. More than a century and a half of service—billions of dollars of business in force, indicate its strength and stability.

Write today for a booklet explaining the operation of mutual fire insurance. No additional material will be sent nor will there be any personal solicitation. Address Mutual Fire Insurance, Room 2202-C, 180 North Michigan Avenue, Chicago, Illinois.

### An Unparalleled Record

75 leading, legal reserve companies under State supervision constitute the Federation of Mutual Fire Insurance Companies. The oldest Federation company was founded in 1752. Five others are more than 100 years old.

Of the remaining companies—

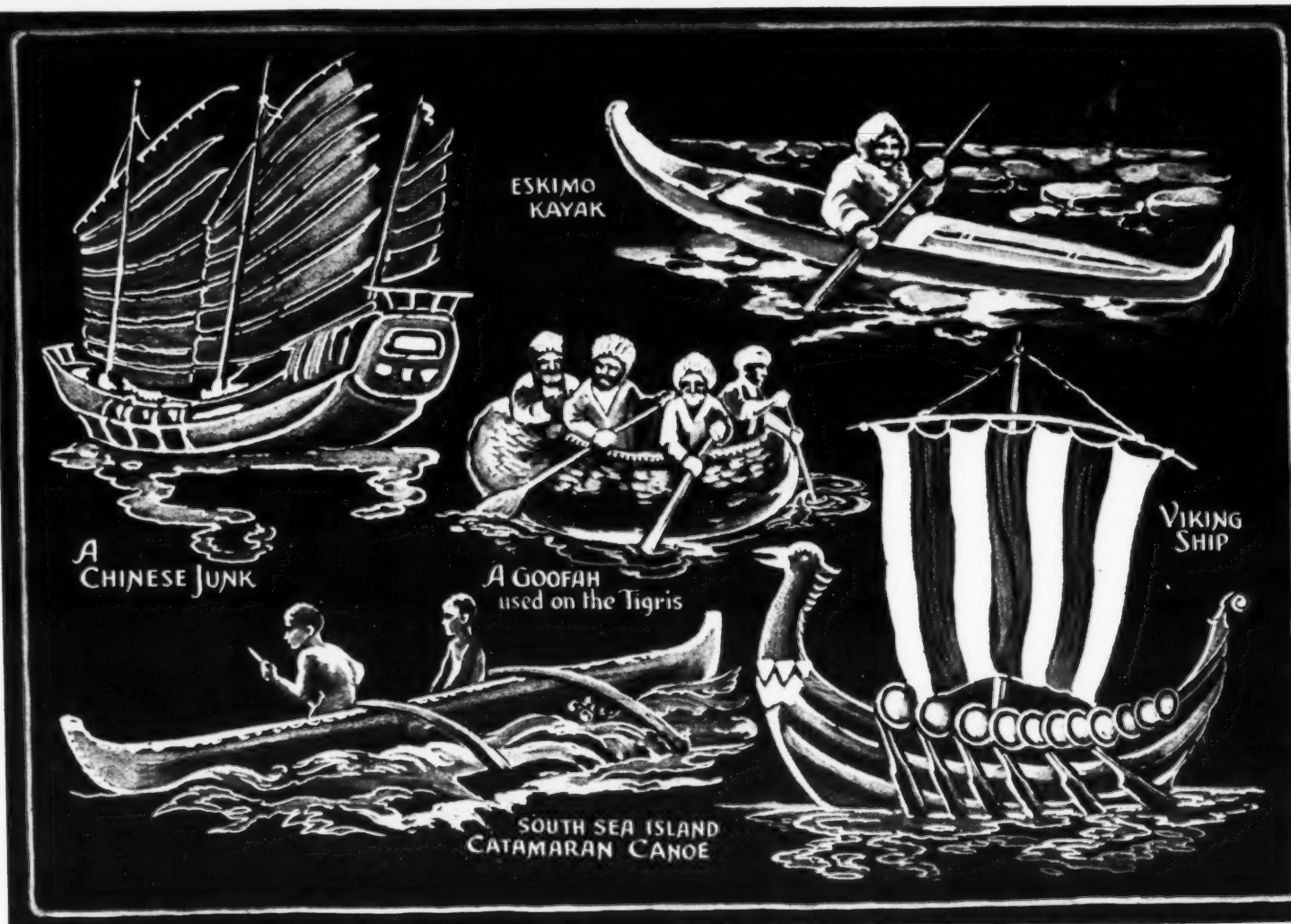
- 9 are between 75 and 100 years old
- 10 are between 50 and 75 years old
- 30 are between 25 and 50 years old
- 20 are between 10 and 25 years old

The Federation companies are protecting property to the extent of six billion dollars—have assets in excess of ninety million dollars—have returned to policyholders savings of more than one hundred and thirty millions of dollars.

# Mutual Fire Insurance

FEDERATION OF MUTUAL FIRE  
INSURANCE COMPANIES





## INTEREST AND ENTHUSIASM

are bound to develop in classes where the teachers make use of VISUAL EDUCATION  
"AMBRITE"

## BRILLIANT COLORED CHALK CRAYONS

510 SERIES

make blackboard work a pleasure. They come in a wide variety of hues and may be blended with white chalk crayons to produce beautiful tints.

Many teachers are also using "*Ambrite*" for sketch work on toned paper. Ask your teachers to write for our free helps "*Using 'Ambrite' Colored Chalk Crayons*".

▼ THE AMERICAN  CRAYON COMPANY ▼

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SAN FRANCISCO · 116 NEW MONTGOMERY STREET  
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LEADERSHIP SINCE 1835 · 95 YEARS OF FAITHFUL SERVICE





## If children wore Cinderella slippers . . .

**G**LASS slippers and dainty steps would save a lot of wear and tear on school-room floors. But red-blooded boys and girls scurry through the halls in shoes sometimes covered with dust and dirt, or weighted down with mud. They cover the lustrous polish, scrape and scratch patterned surfaces, and paint mud designs up the stairs and down the corridors.

Whatever the problem created by heavy, hurrying shoes, the FINNELL Electric Floor Machine can offset it. With it, you can scrub or wax-polish all the floors in

the school building. It restores wax surfaces, protects varnished surfaces, and cleans all floor surfaces. It divides operation costs in half, multiplies savings, subtracts from the custodian's worry over routine details, and adds generally to the attractiveness of your buildings.

The FINNELL SYSTEM is a complete system—not just a machine. There are eight different models of the FINNELL Scrubber-Polisher—one to suit your needs exactly. The size of your building, the floor area, the floor type—all have a bearing on the size you should use. FINNELL is the one system giving you so wide a range.

One superintendent of buildings writes:

"The FINNELL SYSTEM has saved us over 50 per cent in our labor and gives us a much cleaner floor. Before we got the

FINNELL, we employed twelve men to do what four men are now doing with your machine."

Now available in the FINNELL SYSTEM is the **Electric Vacuum Mopper**, which picks up the dirty water from the floor, then rinses the floor with clean water, picking it up immediately, and leaving the floor dry as well as clean.

### INVESTIGATE NOW!

A FINNELL representative will be glad to make a survey of your floor space and recommend which of the eight FINNELL models would best serve your needs. Feel free to call him in—it will cost you nothing whatever and put you under no obligation. Address FINNELL SYSTEM, INC., 803 East Street, Elkhart, Indiana.



The smallest FINNELL Scrubber - Polisher. Light, compact, easy to handle. Ideal for polishing small or crowded areas.

IT WAXES - IT POLISHES - IT FINISHES - IT SCRUBS

# FINNELL

ELECTRIC FLOOR SCRUBBER-POLISHER





SCHOOL architects were among the first to recognize window ventilation, and particularly the principle of the AUSTRAL WINDOW, as the most healthful system of ventilation so far devised.

¶ Reports from the New York State Ventilating Commission show that in the schools of one average American city, total absences were 47% less in the window-ventilated buildings.

¶ The education of young America depends on its good health, to a broader extent this year than ever before, as it is estimated that nearly one-half a billion dollars will be spent for new school construction.

**AUSTRAL WINDOW CO.**

101 PARK AVENUE      NEW YORK CITY